

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CALLAWAY GOLF COMPANY,)	
)	
Plaintiff,)	C.A. No. 06-91 (SLR)
)	
v.)	
)	PUBLIC VERSION
ACUSHNET COMPANY,)	
)	
Defendant.)	

**ACUSHNET'S REPLY BRIEF IN FURTHER SUPPORT OF
ITS MOTION TO STAY ANY PERMANENT INJUNCTION**

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I. INTRODUCTION

Acushnet Company (“Acushnet”) files this reply in further support of its contingent motion to stay, pending appeal to the Court of Appeals, any permanent injunction that may issue.

Since Acushnet’s opening brief was filed, the reexaminations of the patents-in-suit have progressed further and these proceedings are reaching the final stage at the examiner level. On March 4, 2008, the Patent Office issued an action again rejecting all the claims of the ‘130 Patent. *See* Exhibit A, 3/4/08 Office Action re ‘130 Patent. In addition, the Patent Office issued an order *closing* prosecution on the merits as to the ‘130 patent. *Id.* at 2. This means that the examiner has completed his review (subject to certain Patent Office procedures), concluded that the patent is invalid, and is prepared to force Callaway to either amend and narrow the claims or appeal his decision to the Patent Office Board of Appeals and Interferences.

As a result, Callaway can no longer hide behind the “interim” or “tentative” adjectives it has used in the past to describe proceedings in the Patent Office. The reexamination examiner has concluded that the ‘130 claims are invalid. That phase of the reexamination is essentially over. Callaway has lost. Given the schedule followed by the Patent Office in this and previous examinations, it is likely that within three months similar actions closing prosecutions will be issued on the other three patents-in-suit.

Unable to derail or dismiss the Patent Office’s inexorable progress towards invalidating the patents-in-suit, Callaway spends much of its brief requesting that the Court ignore the Patent Office’s repeated findings. Callaway argues that the proceedings should be ignored because Acushnet filed them in breach of the 1996 Agreement, as the Court has found. D.I. 457 at 21-22. This argument is misplaced.

Acushnet initiated the reexaminations in good faith, believing that the 1996 Agreement did not apply. The Court found otherwise, and Acushnet will appeal that finding. However,

once initiated, the reexaminations were conducted by the Patent Office pursuant to its statutory duty to reexamine patents and to strike invalid patents. Callaway fully participated in the reexamination, made all of its arguments, and lost. Callaway can appeal that decision in the Patent Office. In this Court, Callaway may, in the end, have a remedy for breach of contract, but that fact in no way detracts from the fact that the Patent Office decision demonstrates that Acushnet has a strong likelihood of success on appeal.

Callaway also fails to explain how it is possible for the Court to make a proper balancing of the equities, which involves a determination of whether damages are adequate to fully compensate Callaway for infringement, without first determining what those damages should be. Callaway apparently cannot dispute Acushnet's showing on this point.

Callaway's opposition and actions since the jury verdict also suggest that Callaway hopes to use the injunction as a marketing tool to undermine Acushnet's relationships with its retailers and customers. Callaway also seeks to use the injunction as a hammer to try to pressure Acushnet to settle, as it tacitly admits in its opposition brief. D.I. 457 at 9. Neither of these is a legitimate purpose of an injunction. Acushnet reiterates that any determination of an injunction should be made once all relevant information is available to the Court. Callaway should not succeed in its attempt to have the Court rush to judgment on this vital matter.

In *Nichols Institute Diagnostics, Inc. v. Scantibodies Clinical Laboratory, Inc.*, 166 F. App'x 487, 488-89 (Fed. Cir. 2006), a party seeking a stay must demonstrate "***either*** a strong likelihood of success on the merits or ... that it has a substantial case on the merits and that the harm factors militate in its favor." (emphasis added). As Acushnet has demonstrated, both in its opening brief, D.I. 441, and in its briefing of the injunction and post trial motions, D.I. 417, 434,

it has a strong likelihood of success on appeal. Without a doubt it has at least shown a substantial case on the merits; Callaway will suffer little or no additional harm from a stay.

II. ARGUMENT

A. Contrary to Callaway's Assertions, Acushnet is Likely to Succeed On Appeal

It is not Acushnet's intention to reargue each individual point here, but instead to direct the Court's attention to a limited number of salient issues inadequately addressed by Callaway that demonstrates Acushnet's likelihood of success on appeal.

1. Claim Construction

Callaway argues that Acushnet will not prevail on the claim construction issue, and, that even if Acushnet does prevail, that the correct claim construction will not alter the outcome of the trial. D.I. 457 at 3-6. Callaway is incorrect on both grounds.

The Court recognized that the claim construction issue was a close one. The Court indicated that "there is support for both parties' respective claim constructions in the intrinsic and extrinsic evidence of record." D.I. 345 at 1-2. The Court stated that, "in a case like this, where, quite frankly, the claim construction could go either way, I never predict what the Federal Circuit is going to do." D.I. 349 at 4. Callaway's opposition references only the second part of this quote, glossing over the first part. D.I. 457 at 3. This situation is far from what Callaway deliberately understates as "the existence of some uncertainty in construing claims." *Id.* The Court clearly conceded that either construction (on or off the ball) was reasonable.

Plaintiff relies on evidence that those in the art sometimes measured Shore D hardness "on the ball." D.I. 457 at 3-4. However, Callaway's evidence tells only part of the story. What *all* the evidence shows, and what Callaway even conceded in the Markman hearing, is that those

skilled in the art measured hardness **both ways** -- on *and* off the ball. Both readings are plausible and consistent with the practices of those in the art. T. Tr. 493:8-494:3.

More fundamentally, the claim construction issue turns not on whether Shore D hardness *can* be measured on the ball as well as on the plaque, but rather on whether the '130 patent claims *require* that Shore D hardness be measured on the ball. Here, the ASTM standard cited in the specification as defining a hardness measurement *requires* it to be measured off the ball. The relevant part of the '130 patent's specification states that "[s]hore hardness was measured *in accordance* with ASTM test 2240. D.I. 216, Ex. 2, '130 Patent, Col. 6, ll. 63-64. Thus, the plain language of the patents define that Shore D hardness be measured in accordance with the ASTM standard, which requires a plaque or "off the ball" measurement. PX-804. This specification definition should control the claim construction inquiry.

Other aspects of the patents-in-suit demonstrate that a strictly "on the ball" construction cannot be correct. Claim 6 of the '130 patent, for example, claims an "outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi and a Shore D hardness of 64 or less." D.I. 216, Ex. 2, '130 Patent, Col. 24, ll. 1-3. However, the flexural modulus of a cover layer cannot be measured "on the ball." It is an impossibility to do so -- the test requires a bar of rectangular cross section be bent or deflected. D.I. 211, Ex. J.

Thus, just as the reference to the flexural modulus of the "cover layer" has to refer to the flexural modulus of the material from which the cover layer is made, the reference to the Shore D hardness of the same "cover layer" has to refer to the hardness of the material as well. The term "cover layer" must be construed consistently, *see CVI/Beta Ventures v. Tura LP*, 112 F.3d 1146, 1159 (Fed. Cir. 1997), and the intrinsic evidence of the claims dictates that the Shore D measurements refer to the properties of the cover layer material, an "off the ball" measurement.

In its latest ruling, the Patent Office considered both Callaway's and Acushnet's claim arguments. The Patent Office found Acushnet's claim construction was reasonable and also expressly found that "the arguments of [Callaway] concerning measuring of hardness "on the ball" in the claim language [were] unpersuasive." Ex. A., '130 action 3/4/08 at 182. The examiner specifically rejected Callaway's arguments regarding the requirement to measure "on the ball," *id.* at 182-84. The Patent Office decisions on this point surely suggest that Acushnet has demonstrated at bare minimum a "substantial case on the merits for appeal." *Nichols Inst. Diagnostics, Inc.*, 166 F. App'x at 489. *See also Standard Havens Prods., Inc. v. Gencor Inds., Inc.*, No. 93-1208, 1993 U.S. App. LEXIS 11963, at *2 (Fed. Cir. May 21, 1993) (legal error to refuse to stay injunction until reexamination decision became final).

Callaway further claims that even if Acushnet were to prevail on appeal on the claim construction issue, the ultimate outcome of the case would not change. D.I. 457 at 5. Callaway claims that none of the asserted prior art references themselves disclose "off the ball" polyurethane Shore D hardness values. *Id.* Callaway's argument badly misses the mark.

Some of the prior art references before the Patent Office in the original prosecution do not state, on their face, the Shore D hardness of polyurethane when measured "off the ball." However, the Shore D hardness of polyurethane is an inherent property, readily determinable from widely available product specification sheets in use at the time of the prior art. The hardness of these polyurethanes can categorically be shown to be less than 64 measured "off the ball." Polyurethane was well known as a soft material both on and off the ball, as the trial testimony itself established. T. Tr. 467:1-21; 493:23-494:3. Indeed, when the Patent Office was presented the data on the intrinsic hardness properties of the prior art cover materials during the reexamination, it rejected all the patents-in-suit. The polyurethanes in the prior art references

have a Shore D less than 64 off the ball. Acushnet can prove the same; and, as the reexamination shows, under this construction the Court should find that all of the patents are invalid.

Callaway also argues that there was no motivation to combine polyurethane golf ball covers with three-piece golf ball constructions because of alleged “well-documented difficulties and disadvantages with using polyurethane.” D.I. 457 at 5-6; D.I. 455 at 5-6. These alleged difficulties apparently refer to that fact in the late 1980s, Spalding chose to replace the cover of balls using the Molitor ‘751 cover with a different cover. T. Tr. 704:17-24.

Contrary to Callaway’s assertions, by 1995, when the applications leading to the patents-in-suit were filed, castable polyurethanes, like those disclosed in the Wu patent, had been shown to be remarkably successful through Acushnet’s leading Titleist Professional golf ball. T. Tr. 351:22-352:13; 357:4-13. An artisan would, moreover, be familiar with the publicly available Molitor ‘751 itself, which endorses (and indeed specifically instructs) the use of polyurethane on a three-piece golf ball. Furthermore, the art was aware of the polyurethane-covered Spalding Tour Edition, which used the Molitor ‘751 polyurethane and was played by Greg Norman to win the British Open. *See* Exhibit B, Deposition of Greg Norman, 60:12-62:13; T. Tr. at 957:17-959:3. Thus, contrary to Callaway’s assertions, the person of ordinary skill in 1995 would find multiple teachings suggesting the combination of polyurethane covers with a three-piece ball. The fact that Spalding in the 1980s chose, for its own manufacturing reasons, to change the cover on a ball that had won the British Open in no way supports the inference Callaway asserts, that the art disfavored polyurethane covers in 1995 at the time of the invention.¹

¹ There are other areas in which Acushnet contends that the Court was led into error by following improper suggestions in Callaway’s briefs. For example, in summary judgment, the Court relied on Callaway’s citation of *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991) for the proposition that “extrinsic evidence used to fill a gap in a reference ‘must make clear that the missing descriptive matter is necessarily present in the thing

B. Acushnet's Redesign Efforts are Timely and Being Conducted Expeditionously

Callaway argues that Acushnet should have redesigned its balls sooner, and that Acushnet could redesign its product in "a few weeks" if it really were interested in doing so. (D.I. 457 at 9-10). These arguments are not accurate.

Initially, as set forth *infra*, Acushnet proceeded under the good faith belief that these patents are invalid since the first one issued in 2001. [REDACTED]

[REDACTED] the Patent Office agrees that they are invalid today. A party that believes a patent is invalid has no obligation to design around it. Plainly, Acushnet cannot be faulted (except by hindsight) for not redesigning the balls before the jury ruled.

Nor has Acushnet been dilatory in its redesign efforts. [REDACTED]

described in the reference, and that it would be so recognized by persons of ordinary skill.'" In fact, in both *Schering Corp., v. Geneva Pharmaceuticals, Inc.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003) and later in *Toro Co. v. Deere & Co.*, 355 F.3d 1313 (Fed. Cir. 2003), the Federal Circuit changed this standard. This Court has repeatedly recognized the new, different standard. See *IMX, Inc. v. Lending Tree, LLC*, 405 F. Supp. 2d 479, 489 (D. Del. 2005) (Robinson, J.); see also *Boston Scientific Scimed, Inc. v. Cordis Corp.*, C.A. No. 03-283-SLR, 2005 U.S. Dist. LEXIS 10751, at *16 (D. Del. June 3, 2005) (Robinson, J.); see also *Atofina v. Great Lakes Chem. Corp.*, C.A. No. 02-1250-SLR, 2005 U.S. Dist. LEXIS 7365, at *46 (D. Del. Mar. 16, 2005) (Robinson, J.). The *Continental Can* standard is also inconsistent with *K.S.R. Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007). The Court did not allow Acushnet to file motions for reconsideration in order to correct these misperceptions. On appeal, it is clear that the Federal Circuit will implement the correct standard, regardless of Callaway's continued miscitations in case briefing.

Callaway also does not address the issue of the Court's determinations relating to incorporation by reference. Acushnet maintains that under a correct reading of *Zenon Environmental, Inc. v. United States Filter Corp.*, 506 F.3d 1370 (Fed. Cir. 2007), Nesbitt must be seen as incorporating Molitor '637 by reference. D.I. 205 at 5; 263 at 1-8. In its most recent decision, the Patent Office analyzed the teachings of the references and agreed with Acushnet. Ex. A at 23-30. At the very least, Acushnet has demonstrated a "substantial case on the merits" as to this issue as well. *Nichols Inst. Diagnostics, Inc.*, 166 F. App'x at 488-89.

[REDACTED]

[REDACTED] Callaway cannot and does not dispute this showing.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] Callaway's speculation that this should take only a few weeks

is uninformed and wrong.

C. Callaway Uses Inapposite Case Law To Suggest A Stay Should Not Be Granted

Callaway claims that "this Court has repeatedly held that stays are not warranted for companies in Acushnet's position." D.I. 457 at 10. The cases Callaway relies on are distinguishable from this case. Noticeably, Callaway's cases all predate *eBay*, and were decided when injunctions were entered based on a presumption of irreparable harm. Also, in all of the cases cited by Callaway, the Court found that the party seeking a stay was unlikely to succeed in post-trial and appellate proceedings. *See Arthrocare Corp. v. Smith & Nephew, Inc.*, 315 F. Supp. 2d 615, 619 (D. Del 2004) ("[T]here is no convincing evidence that Smith & Nephew's

appeal carries a strong likelihood of success.”); *Honeywell Int’l, Inc. v. Universal Avionics Sys. Corp.*, 397 F. Supp. 2d 537, 550 (D. Del. 2005) (“[T]he Court finds that Universal has failed to make an adequate showing that it will succeed on the merits.”); *Philips Elecs. N.A. Corp. v. Contec Corp.*, C.A. No. 02-123-KAJ, 2004 WL 2009370, at *1 (D. Del. Aug. 24, 2004) (same). Thus Callaway’s authorities are not on point here.

D. Callaway Erroneously Argues That Acushnet May Not Be Able To Meet Any Damages Award

Callaway argues further that an injunction should issue because “it is not at all clear ... that Acushnet can easily or promptly pay the ultimate damages award.” D.I. 457 at 12. This runs in clear contrast to Callaway’s other statements. A mere two pages early in its brief, Callaway states “Acushnet is part of a huge conglomerate, Fortune Brands, and Acushnet, itself, also sells numerous products ... that are not impacted by the proposed injunction.” *Id.* at 10 n.8. In fact, there is no evidence that Acushnet will be unable to pay a damages award, even the inflated one claimed by Callaway.

E. Callaway Ignores The *Innogenetics* and *Paice* Decisions, Which Eviscerate Its Irreparable Harm Arguments

Callaway argues that lost market share can constitute irreparable harm, and cites to older cases supporting this proposition. The Federal Circuit’s recent *Innogenetics* decision makes clear, however, that when a patentee requests compensation for such factors in its damages analysis, such harm is, by definition, compensable and not irreparable. It is therefore no surprise that Callaway ignores this case, and [REDACTED]

F. The Court Should Not Disregard Subsequent Proceedings In The Patent Office

Callaway argues that the Court should not give weight to the developments in the Patent Office reexaminations because they were the product of Acushnet's "illegal" or "unlawful" breach of the 1996 Agreement. D.I. 457 at 21-22. This argument is badly misplaced.

First of all, as noted above, Acushnet started the reexaminations in a good faith belief it had the right to do so. Once instituted, the Patent Office had an obligation to conduct these reexaminations. 35 U.S.C. § 314. It has discharged that duty and has found the patents invalid. Callaway fully participated in that proceeding and, to date, has lost all the claims in all the patents on numerous grounds. The Patent Office proceeding is entitled to consideration by the Court in ruling on a motion to stay. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d at 1360 (Fed. Cir. 2007). Nothing in Federal Circuit case law, or common sense, suggests that the reexamination is entitled to any less weight because Acushnet instituted it in what the Court has found was a breach of contract. The relevance of the reexamination is what the Patent Office did, not that Acushnet instituted them.

Nor would it be appropriate under contract law to "punish" Acushnet's breach of contract by ignoring the effect of the reexamination. Contract law awards compensatory damages only -- punitive awards are not available. *Morabito v. Harris*, C.A. No. 1462-K, 2002 Del. Ch. LEXIS 27, at *10 (Del. Ch. Mar. 26, 2002) ("Our jurisprudence, however, is best reflected in Oliver Wendell Holmes' famous line: 'The only universal consequence of a legally binding promise is, that the law makes the promisor pay damages if the promised event does not come to pass.'").

Moreover, contrary to Callaway's rhetoric, it is neither "unlawful" nor "illegal" to breach a contract. If the Court is affirmed on appeal, it will turn out that Acushnet was wrong in its reading of the agreement. If so, it may owe damages. But Acushnet did not act "illegally" or

“unlawfully” in pursuing its view of the contract, and there is no basis to “punish” Acushnet for pursuing the course it took. *See E.I. DuPont de Nemours & Co. v. Pressman*, 679 A.2d 436, 445 (Del. 1996) (“Traditional contract doctrine is also supported by the more recent theory of efficient breach.”) (*citing Restatement (Second) of Contracts*, Reporter’s Note to Introductory Note to Ch. 16, Remedies).

Callaway’s transparent effort to encourage the Court to altogether ignore the Patent Office’s actions should be rejected. The progress of the reexaminations certainly suggests that Acushnet has a strong likelihood of success on appeal. *See also Custom Accessories, Inc., v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 961 (Fed. Cir. 1986) (trial court erroneously failed to “give any credence to the PTO reexamination proceeding”); *Pfizer, Inc.*, 480 F.3d at 1360 (basis of an “examiner’s initial finding of prima facie obviousness of an issued patent” is a consideration “the trial court must consider in context of the totality of the evidence ‘in determining whether the party asserting invalidity has met its statutory burden’”) (quoting *Fromson v. Advance Offset Plate*, 755 F.2d 1549, 1555 (Fed. Cir. 1985) (examination proceedings are “evidence the court must consider”)); *Fresenius Med. Care Holdings v. Baxter Int’l, Inc.*, No. C 03-1431, 2006 WL 1330003, at *4 (N.D. Cal. May 15, 2006) (determining that evidence of pending reexamination proceedings and a final BPAI decision of a related application were both relevant and admissible on the question of validity of the patents at issue).²

² Callaway implies that Acushnet knowingly breached the 1996 Settlement Agreement, which is not true. D.I. 457 at 14. Acushnet did not believe reexamination requests were covered by this agreement. It took Callaway itself several months to stumble upon this idea. Its original complaint did not allege breach of contract. In its amended complaint, Callaway tacked on this assertion. [REDACTED]

G. Callaway And Spalding's Long Delays In Filing Suit Justify A Stay Pending Appeal

Callaway also disregards the effects of its delay in filing suit on its claims of irreparable harm. Callaway cannot ignore the fact that, as assignee, it is charged with the delays of its assignor. Callaway seeks to dismiss Spalding's delay in filing suit by referencing Spalding's "[REDACTED]" (D.I. 457 at 14). [REDACTED]

[REDACTED] *See Tiber Labs., LLC. v. Hawthorn Pharms., Inc.*, 527 F. Supp. 2d 1373, 1382 n.7 (N.D. Ga. 2007) ("Tiber has cited no authority to the contrary, and has offered no legal support for its proposition that the Court should excuse its predecessor's dilatory conduct because of its financial distress.").

Callaway attempts to explain the almost five years of delay from the issuance of the patents (at a time when the Pro V1 was *already* being sold) by claiming the 1996 Settlement Agreement between Spalding and Acushnet "[REDACTED]" of the delay. *Id.* This argument is unsupportable. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

Callaway further attempts to justify its delay by claiming that it spent "[REDACTED]" [REDACTED] *Id.* Initially, this allegation is unbelievable on its face given the low Rule 11 obligation the Federal Circuit places on patentees. Callaway could have

performed simple tests on the balls, measuring the thickness of the layers and the hardness of the balls, sufficient to meet its Rule 11 standard of good faith in a law suit. It is unreasonable to suggest, without any support, that those tests required [REDACTED]. Callaway's argument is also inconsistent when one considers that Callaway contends that infringement is so clear here that Acushnet should have admitted it years earlier. D.I. 412 at 3. Callaway's argument is further factually unsupported. It is apparent that Callaway did not really spend [REDACTED] [REDACTED], preparing its case for court. Indeed, even before Callaway bought these patents [REDACTED]. D.I. 285, Exs. 7, 22. Callaway took its time because it was [REDACTED] was only looking for money. Callaway took its time because it was not suffering irreparable harm. A denial of an injunction altogether is warranted; however, at a minimum it is apparent that all Callaway wants is money and a stay pending appeal will not harm it.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

_____ The cases to which Callaway cites are inapposite.

In *Novozymes A/S v. Genencor International, Inc.*, 474 F. Supp. 2d 592 (D. Del. 2007), the license granted by the patent owner was to a subsidiary. Because of the corporate structure, “the legal remedy of lost profits damages [was] not available” to Novozymes. *Id.* at 613. Moreover, the injunction in that case was imposed after the damages phase of a bifurcated trial, and after Genencor had been determined to have willfully infringed. As Acushnet has consistently maintained, the determination of both damages and willfulness is of central importance to an injunction decision, and such a determination has not yet occurred here.³

In *Commonwealth Scientific and Industrial Research Organization v. Buffalo Tech., Inc.*, 492 F. Supp. 2d 600 (E.D. Tex. 2007), the district court found royalties on future sales would not be adequate because of the particular harm done to CSIRO. In particular, the court noted “[i]ts

3 Further, the Court here ruled that Genencor “will not be harmed by a permanent injunction.” *Novozymes*, 474 F. Supp. 2d at 613.

reputation as a research institution has been impugned” by the infringement. *Id.* at 605.

Callaway, however, was not the innovator here -- it purchased the patents after infringing them. *Smith & Nephew, Inc. v. Synthes (U.S.A.)*, 466 F. Supp. 2d 978 (W.D. Tenn. 2006) also does not provide the support Callaway claims. As Callaway itself cites, the plaintiff in *Smith* was unwilling to license the patent, [REDACTED].⁴

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

I. Callaway’s Other “Harm” Arguments Lack Merit

Callaway claims that Acushnet has failed to demonstrate “irreparable harm” from an injunction. D.I. 457 at 8-11. Callaway has misstated the standard for stay of injunction. *Nichols Inst. Diagnostics*, 166 F. App’x at 488-89, makes clear that a party seeking a stay must demonstrate “either a strong likelihood of success on the merits or ... that it has a substantial case on the merits and that the harm factors militate in its favor.” Acushnet here has done **both**. The harm demonstrated by Acushnet in its Motion to Stay, D.I. 441, substantially outweighs any

⁴ While the court goes on to state that a willingness to license is not *sufficient* to prevent an injunction, Acushnet has not claimed that it is -- it is, however, as borne out by case law, a factor which courts must consider in the determination of whether to issue an injunction.

further additional harm to Callaway from a small number of months delay while Acushnet shifts production to a non-infringing ball.

Callaway repeatedly chastises Acushnet for alleged deliberate infringement of the patents-in-suit over a number of years. There is no factual basis for such a claim. For example, Callaway notes that “[REDACTED]” D.I. 457 at 1 n.1. Of course, Acushnet received opinions of counsel stating that all four of the patents-in-suit were invalid. D.I. 434, Ex, 29-31. Not only need is a party not required to acquire opinions of counsel in both areas, *see Autobyte, Inc. v. Dealix Corp.*, 455 F. Supp. 2d 569, 575 (E.D. Tex. 2006) (“Non-infringement, invalidity, and unenforceability are separate and independent defenses to infringement”), it is also impossible to be liable for infringing an invalid patent. Acushnet’s honest belief in the invalidity of the patents-in-suit led it to practice the technology therein, believing there was no valid patent to be infringed.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

J. Callaway Seeks An Injunction For Illegitimate Purposes

Callaway provides no justification for the misinformation its employees have been spreading to Acushnet retailers regarding this case. Callaway criticizes Acushnet’s press releases, yet concedes that the statements in those press releases are true. D.I. 460 at 10. On the other hand, Callaway employees have been spreading demonstrably false information regarding

the likely scope of an injunction, [REDACTED]

[REDACTED]. Callaway refers to this outrageous statement as “an obvious joke.” (*Id.* at 11). Acushnet does not feel that deliberately attempting to interfere with its relationships with its retailers through such falsehoods is a laughing matter.

Callaway mistakenly lets slip its true reason for seeking an injunction -- to act as leverage in settlement negotiations. Callaway states that “issuing an injunction and denying a stay might obviate the need for [a damages] trial altogether.” D.I. 457 at 9. The only explanation for this extraordinary statement is that Callaway hopes an injunction will lead to a settlement on favorable terms for it. This is exactly the sort of extortion which courts have stated is an illegitimate reason to grant an injunction. *See e.g. Mercexchange L.L.C. v. eBay, Inc.*, 500 F. Supp. 2d 556, 582 (E.D. Va. 2007) (“Utilization of a ruling in equity as a bargaining chip suggests both that such party never deserved a ruling in equity and that money is all that such party truly seeks, rendering monetary damages an adequate remedy in the first instance.”); *Foster v. Am. Mach. & Foundry Co.*, 492 F.2d 1317, 1324 (2d Cir. 1974) (“An injunction ... is not intended as a club to be wielded by a patentee to enhance his [license] negotiation stance.”).

III. CONCLUSION

Acushnet has demonstrated “either a strong likelihood of success on the merits or ... a substantial case on the merits and that the harm factors militate in its favor.” *Nichols Inst. Diagnostics, Inc.*, 166 F. App’x at 488-89. While ultimately an injunction is simply not warranted in this case, Acushnet has demonstrated that should any injunction issue, the injunction should be stayed as set out in Acushnet’s briefing.

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Dated: March 24, 2008
Public Version Dated: March 31, 2008
858063 / 30030

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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE**

CERTIFICATE OF SERVICE

I, David E. Moore, hereby certify that on March 31, 2008, the attached document was electronically filed with the Clerk of the Court using CM/ECF which will send notification to the registered attorney(s) of record that the document has been filed and is available for viewing and downloading.

I further certify that on March 31, 2008, the attached document was Electronically Mailed to the following person(s):

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EXHIBIT A



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CONTROL NO.	FILING DATE	PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
95/000,122	01/17/06	6,506,130	

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EXAMINER
GELLNER, J.

ART UNIT	PAPER
3993	

DATE MAILED:

03/04/08

INTER PARTES REEXAMINATION COMMUNICATION

BELOW/ATTACHED YOU WILL FIND A COMMUNICATION FROM THE UNITED STATES PATENT AND TRADEMARK OFFICE OFFICIAL(S) IN CHARGE OF THE PRESENT REEXAMINATION PROCEEDING.

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this communication.



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(THIRD PARTY REQUESTER'S CORRESPONDENCE ADDRESS)

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**Transmittal of Communication to Third Party Requester
Inter Partes Reexamination**

REEXAMINATION CONTROL NUMBER 95/000,122.

PATENT NUMBER 6,506,130.

TECHNOLOGY CENTER 3999.

ART UNIT 3993.

Enclosed is a copy of the latest communication from the United States Patent and Trademark Office in the above-identified reexamination proceeding. 37 CFR 1.903.

Prior to the filing of a Notice of Appeal, each time the patent owner responds to this communication, the third party requester of the *inter partes* reexamination may once file written comments within a period of 30 days from the date of service of the patent owner's response. This 30-day time period is statutory (35 U.S.C. 314(b)(2)), and, as such, it cannot be extended. See also 37 CFR 1.947.

If an *ex parte* reexamination has been merged with the *inter partes* reexamination, no responsive submission by any *ex parte* third party requester is permitted.

All correspondence relating to this *inter partes* reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of the communication enclosed with this transmittal.

ACTION CLOSING PROSECUTION (37 CFR 1.949)	Control No.	Patent Under Reexamination	
	95/000,122	6506130	
	Examiner	Art Unit	
	Jeffrey L. Gellner	3993	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address. --

Responsive to the communication(s) filed by:
 Patent Owner on 2 January 2008
 Third Party(ies) on 31 January 2008

Patent owner may once file a submission under 37 CFR 1.951(a) within 1 month(s) from the mailing date of this Office action. Where a submission is filed, third party requester may file responsive comments under 37 CFR 1.951(b) within 30-days (not extendable- 35 U.S.C. § 314(b)(2)) from the date of service of the initial submission on the requester. **Appeal cannot be taken from this action.** Appeal can only be taken from a Right of Appeal Notice under 37 CFR 1.953.

All correspondence relating to this inter partes reexamination proceeding should be directed to the **Central Reexamination Unit** at the mail, FAX, or hand-carry addresses given at the end of this Office action.

PART I. THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892
2. ☒ Information Disclosure Citation, PTO/SB/08
3. ☐ _____

PART II. SUMMARY OF ACTION:

- 1a. ☒ Claims 1-6 are subject to reexamination.
- 1b. ☐ Claims _____ are not subject to reexamination.
2. ☐ Claims _____ have been canceled.
3. ☐ Claims _____ are confirmed. [Unamended patent claims]
4. ☐ Claims _____ are patentable. [Amended or new claims]
5. ☒ Claims 1-6 are rejected.
6. ☐ Claims _____ are objected to.
7. ☐ The drawings filed on _____ ☐ are acceptable ☐ are not acceptable.
8. ☐ The drawing correction request filed on _____ is: ☐ approved. ☐ disapproved.
9. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119 (a)-(d). The certified copy has:
☐ been received. ☐ not been received. ☐ been filed in Application/Control No _____
10. ☐ Other _____

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DETAILED ACTION

This Action Closing Prosecution (ACP) is in response to the Patent Owner's response received 2 January 2008 and the Third Party Requester's comments received 21 January 2008. All rejections in the last office action are maintained. In general, the Examiner agrees with the arguments of the Third Party Requester.

IDS

Accompanying this ACP is a signed SB08 received 5 November 2007.

Statutory Basis for Grounds of Rejections - 35 USC §§ 102 and 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Third Party Requester's Grounds of Rejections

Re. Claim 1

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Page 3

Ground #1. The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit, U.S. Pat. No. 5,314,187 (Proudfit).

Ground #2. The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan et al., U.S. Pat. No. 5,803,831 (Sullivan).

Ground #3. The requester submits that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt).

Ground #4. In the alternative to Ground #3, the requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

Ground #5. The requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Ground #6. The requester submits that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Re. Claim 2.

Ground #7. The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Ground #8. The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

Ground #9. The requester submits that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

Ground #10. In the alternative to Ground #9, the requester submits that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

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Ground #11. The requester submits that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

Ground #12. The requester submits that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '751.

Re. Claim 3

Ground #13. The requester submits that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Ground #14. The requester submits that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

Ground #15. The requester submits that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

Ground #16. In the alternative to Ground #15, the requester submits that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

Ground #17. The requester submits that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

Ground #18. The requester submits that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '751.

Re. Claim 4

Ground #19. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

Ground #20. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor '637.

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Ground #21. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Wu.

Ground #22. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor '751.

Ground #23. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated Nesbitt.

Ground #24. In the alternative to Ground #23, the requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

Ground #25. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

Ground #26. The requester submits that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '751.

Re. Claim 5

Ground #27. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

Ground #28. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated Nesbitt.

Ground #29. In the alternative to Ground #28, the requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

Ground #30. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

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Ground #31. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '751.

Ground #32. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor '637.

Ground #33. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Wu.

Ground #34. The requester submits that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor 751.

Re. Claim 6

Ground #35. The requester submits that claim 6 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

Ground #36. The requester submits that claim 6 is unpatentable under 35 U.S.C. § 102(b) as being anticipated Nesbitt.

Ground #37. In the alternative to Ground #36, the requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '637.

Ground #38. The requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Wu.

Ground #39. The requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Nesbitt in view of Molitor '751.

Ground #40. The requester submits that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious over Proudfit in view of Molitor '637.

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Ground #41. The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Wu.

Ground #42. The requester submits that claim 6 is unpatentable under 35 U.S.C.

§ 103(a) as being obvious over Proudfit in view of Molitor 751.

Summary of Grounds Adopted vel non

For Claim 1:

Adopted: 1 and 3-6.

Not Adopted: 2.

For Claim 2:

Adopted: 7 and 9-12.

Not Adopted: 8.

For Claim 3:

Adopted: 13 and 15-18.

Not Adopted: 14.

For Claim 4:

Adopted: 20-26.

Not Adopted: 19.

For Claim 5:

Adopted: 28-34.

Not Adopted: 27.

For Claim 6:

Adopted: 36-42.

Not Adopted: 35.

In sum, Proposed Grounds 1, 3, 4, 5-7, 9-13, 15-18, 20-26, 29-34 and 36-42 are **Adopted**
by the Examiner.

In sum, Proposed Grounds 2, 8, 14, 19, 27, 28, and 35 are **Not Adopted** by the Examiner.

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Summary of the Grounds of Rejections

Claims 1-3 are rejected under 35. U.S.C. § 102(b) as being anticipated by Proudfit, U.S. Pat. No. 5,314,187 (Proudfit).

Claims 1-3 are rejected under 35. U.S.C. § 102(b) as being anticipated by Nesbitt, U.S. Pat. No. 4,431,193 with incorporation by reference of Molitor US 4,274,637 (Nesbitt).

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) mentioning Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637) in view of Wu, U.S. Pat. No. 5,334,673, (Wu) as evidenced by Exhibit C.

Claims 1-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt, U.S. Pat. No. 4,431,193 (Nesbitt) mentioning Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,274,637 (Molitor '637).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Wu, U.S. Pat. No. 5,334,673 (Wu).

Claims 4-6 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Proudfit, U.S. Pat. No. 5,314,187 (Proudfit) in view of Molitor et al., U.S. Pat. No. 4,674,751 (Molitor '751).

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Proposed Third Party Requester's Rejections

Issue of Inherency

Multiple proposed rejections that the third party requester submits are based on the inherent properties of the materials. In order to prove the inherent properties of these materials the requester has provided "product data sheets" for the following materials: SURLYN (Exhibit I) and ESTANE (Exhibit J). These "product data sheets" have publication dates later than the critical date of the claimed inventions. Also, the third party requester has provided other Exhibits to prove or evidence inherency, e.g. Exhibit C (description of a golf product performance characteristics); Exhibits G and L (patent owner's admissions).

MPEP § 2124 lists exceptions to the rule that the publication date must precede the critical data of the claimed invention: "...facts [that] include the characteristics and properties of a material...". The Shore D hardness and flexural modulus are characteristics and properties of a material. Thus, it is appropriate to use these "product data sheets" to show such a universal fact as the inherent properties of a known material. Moreover, see also MPEP § 2112.01: "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977)." And, "Products of identical chemical composition can not have mutually exclusive properties." "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)."

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Copendency

As discussed in the Decision granting reexamination of the '130 Patent, the request indicates on pages 12 and 13 that the '130 Patent is not an appropriate continuation application because it lacks copendency with application No. 08/870,585 that was abandoned on Feb. 7, 2001 when the Applicant failed to file an appeal brief with two months of a notice of appeal. However, a review of the Office's records show that the Applicant filed a one month extension of time; an additional two months extension of time; and a notice of appeal which provides an Applicant with two months of time. Therefore, the Applicant extended the response time to the final rejection for five months which allow the Applicant to file a response to the final rejection up until April 13, 2001. Application No. 09/832,154, the application to which the '130 Patent issued therefrom, was filed on April 10, 2001. Therefore, the Patent Owner of the '130 Patent maintained proper copendency between the '585 application and the '154 application.

Re. Claim 1

Proposed Third Party Requester Rejection: Ground #1

The requester submits on pages 15-17 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit. It should be noted that the requester's claim chart on pages 16 and 17 does not reflect the actual claim language, see the last limitation. Thus, the Examiner has had to generate a new claim chart and comparison of the prior art to said chart.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet).

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Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 1	Proudfit						
A golf ball comprising:	"This invention relates to golf balls , and more particularly, to a golf ball having a two-layer cover." (Proudfit, col. 1, ll. 11-12.)						
a core;	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"Two specific solid core compositions used with the new two-layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (Proudfit, col. 7, ll. 51-55.)</p>						
an inner cover layer having	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins" (Proudfit, col. 7, ll. 21-24.)						
a Shore D hardness of 60 or more molded on said core,	<p>The composition of the inner cover layer is described in Table 6.</p> <table border="1"> <caption>TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</caption> <thead> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Eodiam-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zano-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core,</p>	Ionomer Type	Blend Ratio	Eodiam-Surlyn 8940	75%	Zano-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Eodiam-Surlyn 8940	75%						
Zano-Surlyn 9910	25%						

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	compression mold the inner cover over the core.” (Proudfit, col. 8, ll. 32-38.)						
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</p> <table border="1"> <thead> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The ‘981 Patent discloses the preferable amount of unsaturated carboxylic acid is “from about 5[%] to about 15% by weight.” (‘981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the ‘981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
an outer cover layer having	“FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material.” (Proudfit, col. 7, ll. 21-24.)						
a Shore D hardness of 64 or less molded on said inner cover layer,	“... an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.						

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	<p style="text-align: center;">TABLE 7</p> <p style="text-align: center;">Composition of Outer Layer (Parts by Weight)</p> <table border="1"> <tbody> <tr> <td>Trans Polyisoprene (TP-301)</td><td>60.00</td></tr> <tr> <td>Polybutadiene</td><td>40.00</td></tr> <tr> <td>Zinc Oxide</td><td>5.00</td></tr> <tr> <td>Titanium Dioxide</td><td>17.00</td></tr> <tr> <td>Ultramarine Blue color</td><td>.50</td></tr> <tr> <td>Zinc DiAcrylate</td><td>35.00</td></tr> <tr> <td>Peroxide (Varon 230 XL)</td><td>2.50</td></tr> <tr> <td>Total</td><td>160.00</td></tr> </tbody> </table> <p>Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.</p>	Trans Polyisoprene (TP-301)	60.00	Polybutadiene	40.00	Zinc Oxide	5.00	Titanium Dioxide	17.00	Ultramarine Blue color	.50	Zinc DiAcrylate	35.00	Peroxide (Varon 230 XL)	2.50	Total	160.00
Trans Polyisoprene (TP-301)	60.00																
Polybutadiene	40.00																
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Titanium Dioxide	17.00																
Ultramarine Blue color	.50																
Zinc DiAcrylate	35.00																
Peroxide (Varon 230 XL)	2.50																
Total	160.00																
<p>said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.</p>	<p>"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked ((an indication that the material is a thermosetting material)) during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)</p>																

This rejection of claim 1 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 1: Patent Owner's Argument received 30 April 2007

The crux of Patent Owner's argument that Proudfit (US 5,314,187) does not anticipate the claimed invention is centered on the inherency of Proudfit's outer layer (the balata layer)

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having a Shore D value of 64 or less (Patent Owner's Response pages 24-26). In the rejection adopted by the Examiner this inherency is shown by reference to the Hebert Declaration (*see Proposed Third Party Requester Rejection: Ground #1, supra*) which in turn cites Exhibit A (analysis, *i.e.* technical information, of the Wilson Ultra Tour Balata brand of golf balls). Patent Owner attacks the Hebert Declaration because: (1) Hebert is employed by the Third Party Requester which currently is in litigation with the Patent Owner so the declaration should be viewed with suspicion (Patent Owner's Response at bottom of page 24 to top of page 25); (2) it is not reasonable to conclude that the Wilson Ultra Tour Balata golf ball is representative of the outer layer compositions of golf balls described generally in Proudfit and in Proudfit's Table 7, in particular (Patent Owner's Response at 1st para. of page 26); (3) neither the Hebert Declaration nor its Exhibit A state whether the proffered Shore D hardness value for the Wilson Ultra Tour Balata golf ball was made on the ball, as Sullivan's claims require (Patent Owner's Response at 2nd para. of page 26); and, (4) the data on the Wilson Ultra Tour Balata golf ball is not competent evidence of what the Proudfit patent discloses (Patent Owner's Response at 3rd para. of page 26).

Patent Owner also argues that Proudfit fails to disclose an inner cover layer having a Shore D hardness, measured on the ball, of at least 60 (Patent Owner's Response at 4th para. of page 26).

Ground 1: Third Party Requester's Comments received 30 May 2007

Third Party Requester responds that the Wilson Ultra Tour Balata golf ball is representative of the properties of golf balls disclosed in the Proudfit patent (Third Party

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Requester's Comments at middle to bottom of page 28). This is because both are three-piece golf balls with an outer cover layer comprising cis-polybutadiene and synthetic balata (trans-polyisoprene), with intermediate layers of sodium and zinc Surlyns, and with compressions of 100. Further, Wilson Ultra Tour Balata golf ball were "marked" with the number of the Proudfit patent (Examiner notes that presumably the Third Party Requester means that the packaging cited the Proudfit patent. Examiner further notes that a copy of this packaging was not seen by the Examiner after reviewing the record).

In addition, the Third Party Requester states that it is irrelevant as to the scale used to measure hardness of the outer cover because the value (52) given in the Hebert Declaration would be below the claimed hardness, Shore D hardness of 64 or less, on any scale. Finally, the Third Party Requester argues the inner cover of the Proudfit golf ball has the required hardness because Table 6 of Proudfit sets forth for the inner cover material of a blend of Surlyns which have the required hardness.

Ground 1: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 1 under 35 USC 102(b) with Proudfit is maintained. As to the arguments of the Patent Owner concerning the Hebert Declaration, the Examiner considers this declaration to be proper for showing the inherency of the hardness level of the outer cover layer.

Specifically, for Patent Owner's first argument, the Hebert Declaration was made with the acknowledgement that false statements and the like are punishable by fine or imprisonment

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and may jeopardize the validity of the patent (Hebert Declaration at para. 10). Therefore, the Examiner accepts the declaration as competent evidence.

For Patent Owner's second argument, when comparing the compositions of the outer cover layers of the Wilson Ultra Tour Balata golf ball and the Proudfit's Table 7 both have as their main constituents polybutadiene and trans-polyisoprene. With similar compositions the two layers would exhibit similar characteristics, including hardness (see MPEP 2112.01(II)).

For Patent Owner's third argument, the claim language of the '130 patent (the Sullivan patent that is at issue) does not require the hardness of the outer layer to be measured when on the ball. The operative language of claim 1 is "an outer cover layer having a Shore hardness of 64 or less molded on said inner cover" at col. 22, lines 1-2. The broadest reasonable interpretation of this language is that the over cover layer has a Shore hardness of 64 or less and is molded onto the inner cover. The two limitations, hardness and molded, are distinct and not linked. This conclusion is strengthened by the fact that the specification of the '130 patent does not disclose measuring hardness on the ball.

For Patent Owner's fourth argument, the Examiner considers the Wilson Ultra Tour Balata golf ball to be competent evidence for Proudfit's patent because the two have similar compositions and characteristics as discussed in the Third Party Requester's comments.

Finally, as to the Patent Owner's argument that Proudfit fails to disclose an inner cover layer with the required hardness, Examiner agrees with the Third Party Requester that Table 6 of Proudfit discloses a layer with the required hardness.

Proposed Third Party Requester Rejection: Ground #2.

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The requester submits on pages 18-19 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 2: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 2: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

Ground 2: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #2.**

Proposed Third Party Requester Rejection: Ground #3.

The requester submits on pages 20-24 in the request that claim 1 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. The third

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party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt with incorporation by reference of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 1	Nesbitt with Molitor '637 (incorporated by reference)
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	<u>Nesbitt</u> : "[I]nner cover 14 of molded hard , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.) <u>Per the '130 Patent</u> : "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.) <u>Exhibit I</u> : SURLYN 8940 has a Shore D hardness of 65 .
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more	<u>Nesbitt</u> : "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for

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than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p>the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor ‘637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	<p>“An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ...” (Nesbitt, col. 2, ll. 43-47.)</p>
a Shore D hardness of 64 or less molded on said inner cover layer,	<p><u>Nesbitt</u>: “Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor ‘637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	<p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

As mentioned above, Nesbitt incorporates by reference Molitor ‘637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor ‘637. Examples 1-7 use a ratio of SURLYN 1605 and

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SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from **about 5[%] to about 15% by weight of unsaturated carboxylic acid.**" '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt incorporating by reference Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

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Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

This rejection of claim 1 based on Nesbitt incorporating by reference Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 3: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue this rejection.

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Ground 3: Third Party Requester's Comments received 30 May 2007

The Third Party Requester argues that the language of Nesbitt at col. 3, lines 56-61, was a proper incorporation by reference of Molitor '637. In the 1st Office Action the Examiner stated that the language of Nesbitt was not a proper incorporation of reference because the perfecting root words of "incorporate" and "reference" were not in the reference statement (1st Office Action, pages 14-15). The Third Party Requester's rebuttal to this position in their Comments (received 30 May 2007) is that the standard used by the Examiner was not the standard for incorporation by reference during prosecution of the Nesbitt patent (Third Party Requester's Comments at pages 3 to top of page 5). The Third Party Requester bolsters this argument by citing two court decisions (Third Party Requester's Comments at pages 3 to top of page 5).

Ground 3: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. The language of incorporation used in Nesbitt is found at col. 3, lines 54-61, and states that "Polymeric materials are preferably such as ionomer resins which are foamable. **Reference is made** to the application Ser. No. 155,658, of Robert P. Molitor issued into U.S. Patent No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers . . ." (emphasis added).

The pertinent language of incorporation by reference quoted in *In re Hughes* is found at 550 F.2d 1275 and states that "**Reference is made** to application Ser. No. 131,108 for complete

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description of methods of preparing aqueous polymeric dispersions applicable in the hereinafter described invention” (emphasis added). This language was held to incorporate ‘108.

The pertinent language of incorporation by reference quoted in *In re Voss* is found at 557 F.2d 816 and states that “Reference is made to United States Patent No. 2,920,971, granted to S.D. Stookey ‘971, for a general discussion of glass-ceramic materials and their production” (emphasis added). This language was held to incorporate ‘971.

Since the language in Nesbitt for incorporation by reference is virtually identical to the language used in *In re Hughes* and *In re Voss*, the Examiner concludes that Nesbitt incorporates by reference Molitor ‘637.

Proposed Third Party Requester Rejection: Ground #4.

In the alternative, the requester submits on pages 20-24 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor ‘637.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor ‘637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor ‘637 discloses, teaches or suggests the claim limitations.

Claim 1	Nesbitt (primary) with Molitor ‘637 (teaching)
A golf ball comprising:	“The disclosure embraces a golf ball and method of making the same...” (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	“Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in

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	the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J</p>

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	(ESTANE Thermoplastic Polyurethane Product Data Sheet) See below for Shore D hardness of 64 or less limitation explanation.
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.

As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing

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Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover,

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as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 1 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 4: Patent Owner's Argument received 30 April 2007

The Patent Owner argues that the combination of Nesbitt and Molitor '637 is improper because: (1) Nesbitt's entire focus is on golf balls with all-ionomer resins, preferably foamable, two-layer covers and references Molitor '637 for examples of foamable ionomer resins. Hence, Nesbitt teaches away from the disclosure of Molitor '637's disclosure of non-ionomeric resins, including polyurethane (Patent Owner's Response at middle of page 15 middle of page 16); (2) in a deposition (Exhibit E) Nesbitt, himself, stated that he did not consider use of polyurethane as an outer cover material (Patent Owner's Response at middle to bottom of page 16); (3) Nesbitt combined with Molitor '637 is improper because their individually disclosed thicknesses for the

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outer layer are divergent (Patent Owner's Response at top of page 17); (4) neither reference discloses a Shore D hardness of 64 or less for the outer layer measured on the ball with the Examiner relying on commercial literature of ESTANE polyurethane (Exhibit J) for a hardness value. This value is not probative because hardness values of the same material will differ depending upon the total construction of the ball (Patent Owner's Response at middle to bottom of page 18); and, (5) the combination impermissibly uses hindsight construction by scouring the prior art to locate individual claim elements (Patent Owner's Response at middle to bottom of page 19).

Ground 4: Third Party Requester's Comments received 30 May 2007

As to the Patent Owner's first argument, the Third Party Requester states that the plain language of the Nesbitt patent is that the outer or inner layers can be of a synthetic polymeric material and that Molitor '637 gives examples of synthetic polymeric materials, including polyurethane (Third Party Requester's Comments at top of page 20; while the Third Party Requester concentrates on natural materials the Examiner interprets this language to encompass synthetic polymeric materials).

As to the Patent Owner's second argument, the Third Party Requester states the Federal Circuit takes a dim view of testimony for a patent's meaning of inventors long after the fact citing *Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys* (Third Party Requester's Comments at middle of page 20).

As to the Patent Owner's third argument, the Third Party Requester states that the ranges of thicknesses in the two patents overlap, and, hence, a person of ordinary skill would find it

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obvious to substitute one layer material for another (Third Party Requester's Comments at top to middle of page 21).

As to the Patent Owner's fourth argument, the Third Party Requester states that an expert in the art produced a three-piece golf ball with the core and inner cover of Nesbitt and the over, polyurethane, cover of Molitor '637. This ball exhibited shore hardness values that read on the claimed values (Third Party Requester's Comments at bottom of page 21 to top of page 22).

As to the Patent Owner's fifth argument, the Third Party Requester states that the combination of a ball with the core and inner layer of Nesbitt with the outer, polyurethane, layer of Molitor '637 is proper in light of the decisions in *ex parte Sullivan* and *KSR v. Teleflex* (Third Party Requester's Comments at page 14 to middle of page 19). In *Sullivan* a split panel of the BPAI held that "[i]n applying the test for obviousness we conclude that the teachings of Wu clearly would have made it obvious at the time of the invention was made to a person of ordinary skill in the art to have modified Nesbitt's golf ball by using polyurethane as the outer cover material to achieve the expected benefits therefrom taught by Wu (i.e., to have the "click" and "feel" of balata; improved shear resistance and cut resistance; durability; and resiliency)" (Third Party Requester's Response at bottom of page 14; footnote omitted). In *KSR* a unanimous Court held that "[c]ommon sense teaches . . . that . . . in many cases, a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle" (Third Party Requester's Comments at middle of page 16).

Ground 4: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained. Although Nesbitt's emphasis (in his patent and deposition) may be on all-ionomer resins, it is settled law that a patent teaches all that it discloses, including nonpreferred embodiments (MPEP 2123(I)). Since Nesbitt references the Molitor '637 patent, one of ordinary skill would logically look at its complete disclosure which includes the use of polyurethane as an outer cover. The combination is proper because, in addition to the holdings quoted by the Third Party Requester in their Comments, The Supreme Court has held that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reasons to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense" (slip opinion of *KSR* at middle of page 17). Here, the problem of producing a golf ball with distance, durability, "click," and feel was known (Patent Owner's Response at bottom of page 4). Polyurethane was a known solution for providing "click" and feel (Third Party Requester's Comments, above). The resulting golf ball with a polyurethane outer cover layer had the expected results (*Sullivan* at page 11). Thus, the golf balls disclosed by the Sullivan patent at issue is of ordinary skill and common sense.

Proposed Third Party Requester Rejection: Ground #5.

The requester submits on pages 25-26 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

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Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Wu discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionic thermoset materials, for the use as an outer layer.

Claim 1	Nesbitt (primary) mentioning Molitor '637 with Wu (teaching)
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	Nesbitt: "[I]nner cover 14 of molded hard , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. DuPont de Nemours." (Nesbitt, col. 2, ll. 36-38.) Per the '130 Patent: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.) <u>Exhibit I</u> : SURLYN 8940 has a Shore D hardness of 65 .
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated	Nesbitt: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)

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<p>carboxylic acid; and</p>	<p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
<p>an outer cover layer having</p>	<p>"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)</p> <p><u>Wu</u>: "Preferably, a golf ball is made in accordance with the present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66.)</p>
<p>a Shore D hardness of 64 or less molded on said inner cover layer,</p>	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p><u>Wu</u>: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, <i>inter alia</i>, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention, More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38.)</p> <p>See below for more explanation of how Wu teaches and/or suggests the Shore D hardness of 64 or less limitation</p>

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	explanation.
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	<p>Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p>Wu: “[t]he present invention is a golf ball product made from a polyurethane prepolymer cured with a slow-reacting curing agent selected from the group of slow-reacting polyamine curing agents or difunctional glycols. The term “golf ball product” as used in the specification and claims means a cover, a core, a center or a one-piece golf ball. The cover of a golf ball made in accordance with the present invention has been found to have good shear resistance, cut resistance, durability and resiliency. Preferably, the polyurethane composition of the present invention is used to made the cover of a golf ball.” (Wu, col. 2, ll. 33-44.)</p>

As mentioned above, Nesbitt mentioning Molitor '637 teaches the use of particular polyurethane materials for the use as an outer layer. Wu teaches that polyurethane was being used as the outer layer of golf ball *circa* 1993. Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the “click” and “feel” of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar “click” and “feel” of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923;

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4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; 5,334,673; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 1 based on Nesbitt mentioning Molitor '637 in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 5: Patent Owner's Argument received 30 April 2007

The Patent Owner argues the rejection is improper because: (1) the Wu patent is silent as to the Shore D hardness value of its golf balls and in a deposition Ms. Wu said she could not

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predict what the hardness would be of a finished golf ball (Patent Owner 's Response middle of page 20); (2) the Titleist 1 ball, which Examiner uses to disclose the proper hardness of the outer layer, or cover, because the ball's commercial literature lists the Wu patent, is not competent evidence because Wu's patent's claims are silent as to hardness (Patent Owner 's Response middle of page 20); (3) the claimed invention is the synergistic combination of features and the Examiner impermissibly uses hindsight to re-assemble the ball (Patent Owner 's Response middle of page 21); and, (4) the BPAI's divided opinion (the decision in *ex parte Sullivan*) is not binding precedent and the claims here are more narrow (Patent Owner 's Response bottom of page 21 to top of page 22).

Ground 5: Third Party Requester's Comments received 30 May 2007

The crux of the Third Party Requester's arguments are that there is motivation to combine Nesbitt and Wu for the reasons given in *ex parte Sullivan* (Third Party Requester's Comments at middle of page 22). Any difference between the claims at issue in *ex parte Sullivan* and the claims at issue here are found by incorporation (and inherency) of the commercial literature of Estane 58133 and Surlyn 1605 (8940) (Third Party Requester's Comments at bottom of page 23). Finally, an expert has made golf balls according to the teachings of Nesbitt and Wu and the resultant balls have the required characteristics.

Ground 5: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu is maintained. As to the Patent Owner's first and second arguments, Examiner considers the Wu patent to describe the Titleist 1 cover because both the patent and the cover's commercial literature disclose the ball as "cut-resistant" (Wu patent at col. 2 line 41; Titleist 1's commercial literature at text above "Titleist Professional Specifications"). In addition, both have ball velocities of 253.0 ft./sec. (Wu patent at col. 8 Table IV; Titleist 1's commercial literature at "Titleist Professional Specifications"). These two characteristics combined with the fact that the Titleist 1 cites the Wu patent leads to the conclusion that the cover of the Titleist 1 is within the ambit of the composition described in the Wu patent. Hence, the Titleist 1 commercial literature accurately recites other characteristics on which the WU patent is silent, such as Shore D hardness. Whether Wu, herself, knew the hardness of an outer layer made of her composition or her patent's claim's silence as to this characteristic, is not dispositive because of the commercial literature of the Titleist 1.

As to the Patent Owner's third and fourth arguments, the combination is proper because The Supreme Court has held that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reasons to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense" (slip opinion of *KSR* at middle of page 17). Here, the problem of producing a golf ball with distance, durability, "click," and feel was known (Patent Owner's Response at bottom of page 4). Polyurethane was a known solution for providing "click" and feel (*see* Third

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Party Requester's Comments for Ground 4, above). The resulting golf ball with a polyurethane outer cover layer had the expected results (*Sullivan* at page 11) and not, therefore, synergistic. Thus, the golf balls disclosed by the combination of Nesbit and Wu are of ordinary skill and common sense. Since this combination has the elements cited in claim 1 of *Sullivan* '130, the decision in *ex parte Sullivan* is supportive but not dispositive.

Proposed Third Party Requester Rejection: Ground #6.

The requester submits on pages 27-28 in the request that claim 1 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 1 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 1	Nesbitt (primary) mentioning Molitor '637
A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly

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	flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded on said core,	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
the inner cover layer comprising a blend of two or more low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid; and	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
an outer cover layer having	"An outer layer , ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less molded on said inner cover layer,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>

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<p>said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.</p>	<p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>
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As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

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Also, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". **A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64.** Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

As shown above in the claim chart, Nesbitt mentioning Molitor '673 suggests the use of a soft outer cover layer including a polyurethane material. In an analogous golf ball, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of

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(1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55.

(Molitor '751, col. 2, ll. 33-49 (emphasis added)).

Moreover, in explaining what constitutes a two-piece golf ball, Molitor '751 teaches that:

The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls have non-wound cores.

(Molitor '751, col. 3, ll. 7-12 (emphasis added)).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read

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equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request on page 28

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft non-ionomeric polymeric outer cover layer incorporated by Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

Moreover, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 1 based on Nesbitt mentioning Molitor '637 in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 6: Patent Owner's Argument received 30 April 2007

The Patent Owner argues the rejection is improper because: (1) Molitor '751 describes the cover of his golf ball with hardness values in terms of Shore C, hence, one of ordinary skill

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would not look to combine this teaching with the patent of Nesbitt, with hardness values recorded in terms of Shore D, because the two hardness values, or scales, have no simple mathematical correlation (Patent Owner's Response at page 22 to top of page 23); and, (2) no motivation to combine Nesbitt with Molitor '731 because the Molitor '731 ball's construction is not three-piece having an inner cover of low acid ionomers (Patent Owner's Response at middle of page 23 to top of page 24).

Ground 6: Third Party Requester's Comments received 30 May 2007

Third Party Requester counter argues that Shore C hardness values can be converted to Shore D values as evidenced by, *inter alia*, the Sullivan '131 patent, itself (Third Party Requester Comment's at page 25 to middle of page 26). Further, motivation to combine exists because, *inter alia*, Molitor '751, itself, states that its cover can be used with golf balls as disclosed by Nesbitt (Third Party Requester's Comments at middle of page 26 to top of page 28).

Ground 6: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751 is maintained. As to the Patent Owner's first argument, Examiner specifically agrees with the Third Party Requester's comments that a correlation, or conversion, exists between the two hardness scales, Shore C and Shore D, because Sullivan '130 gives a conversion of the two scales at col. 3 lines 36-40. Further, the quote used by the Patent Owner from the ASTM D-2240

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standard stating that ““no simple relationship exists”” between the two scales (Patent Owner’s Response at bottom of page 22) does not preclude a conversion factor, even if complex. Hence, one of ordinary skill would not be deterred from use of prior art regardless of the hardness scale used to define its various layers.

As to the Patent Owner’s second argument, Examiner considers the language of the Molitor ‘751 patent that “the phrase “two-piece ball” as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls, having non-wound cores” provides motivation to combine the two references. Molitor ‘751 provides specific motivation, for example, at col. 1, lines 11-15, where it states that the invention is concerned with a “golf ball cover useful in making balls, particularly two-piece balls, having superior short iron and other playability characteristics.”

Further, The Supreme Court has held that “[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reasons to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense” (slip opinion of *KSR* at middle of page 17). Here, the problem of producing a golf ball with distance, durability, “click,” and feel was known (Patent Owner’s Response at bottom of page 4). Polyurethane was a known solution for providing playability properties (Molitor ‘751 at abstract). The resulting golf ball with a polyurethane outer cover layer had the expected results (Sullivan ‘130 at abstract). Thus, the golf balls disclosed by the combination of Nesbit and Molitor ‘130 are of ordinary skill and common sense.

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Re. Claim 2

Proposed Third Party Requester Rejection: Ground #7.

The requester submits on pages 29-30 in the request that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Claim 2 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit as evidenced by Exhibit G "The Relationship Between Golf Ball Construction and Performance".

Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 2	Proudfit
A golf ball according to claim 1,	See above, Ground #1.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"The thickness of the inner layer can be within the range of about 0.0250 to 0.2875 inch to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (col. 7, lines 37-40.) "The preferred dimensions are ... an inner layer thickness of 0.037 inch" (col. 7, lines 43-44.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch" (col. 7, lines 40-46.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch (total ball diameter of 1.680 inch)." (col. 7, lines 43-47.)

As admitted by the inventor of the instant Patent under reexamination, the "golf ball designer must adhere to the rules of golf as put forth by the USGA and R & A Golf Club." See

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Exhibit G "The relationship between golf ball construction and performance". At that time, the inventor identified the rules of the two governing bodies:

(1) the ball weight must not exceed 1.62 oz, (2) the ball size must be at least 1.68 inches in diameter, (3) initial velocity must not exceed 250 ft/sec with a 2% maximum tolerance when struck at 143.8 ft/sec, (4) overall distance must not exceed 280 yards with a 6% tolerance when hit with a USGA specified driver at 160 ft/sec (clubhead speed) at a 10 degree launch angle as tested by the USGA, and (5) the ball must pass the USGA administered symmetry test, i.e. fly consistently (in distance, trajectory and time of flight) regardless of how it is placed on the tee. Id.

Thus, based on the evidence present in the record and the admission of the inventor that "the golf ball designer must adhere to the rules of golf as put forth by the USGA," Proudfit would inherently have to meet the U.S.G.A. standards in order to have a golf ball invention that would be economically viable.

This rejection of claim 2 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 7: Patent Owner's Argument received 30 April 2007

The Patent Owner does not directly argue this rejection.

Ground 7: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not specifically comment on this rejection.

Ground 7: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

The claim stands rejected.

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Proposed Third Party Requester Rejection: Ground #8.

The requester submits on page 31 in the request that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 8: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 8: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

Ground 8: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #8.**

Proposed Third Party Requester Rejection: Ground #9.

The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

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In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on page 32 the third party requester proposes where Nesbitt (passages that do not refer or mention Molitor '637) discloses the limitations of claim 2. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt with incorporation by reference of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #4.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches" (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin" (col. 3, lines 34-38.)

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This rejection of claim 2 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 9: Patent Owner's Argument received 30 April 2007

The Patent Owner did not argue this rejection.

Ground 9: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's arguments for this claim are the same as given *supra* at "Ground 3: Third Party Requester's Comments."

Ground 9: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. See "Ground 3: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #10.

In the alternative, the requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

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Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #4.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches" (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin" (col. 3, lines 34-38.)

This rejection of claim 2 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 10: Patent Owner's Argument received 30 April 2007

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The Patent Owner argues that the range of thickness claimed in the Sullivan '130 patent is mostly below the possible minimum thickness of Molitor '637 (Patent Owner's Response at middle of page 17).

Ground 10: Third Party Requester's Comments received 30 May 2007

The Third Party Requester counter argues that Nesbitt specifically teaches one skilled in the art to look to Molitor '637 for cover materials and that the range of cover materials in Nesbitt in view of Molitor '637 falls within the claimed range of Sullivan '130 (Third Party Requester's Comments at middle of page 21; it is noted that the Third Party Requester stated that the combination would fall within the claimed range of Nesbitt which examiner interprets to mean Sullivan '130).

Ground 10: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 2 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained. Nesbitt discloses outer layers, covers, within the claimed range as described in the rejection, *supra*. One of ordinary skill would find it obvious to look to Molitor '637 for cover material because Nesbitt cites Molitor '637. Finally, the lower level of thickness envisioned by Molitor '637 (0.06 inches) is within the range claimed in Sullivan '130.

Proposed Third Party Requester Rejection: Ground #11.

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The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations where the Nesbitt reference discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionic thermoset materials, for the use as an outer layer.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #5.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches" (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin" (col. 3, lines 34-38.)

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This rejection of claim 2 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 11: Patent Owner's Argument received 30 April 2007

Patent Owner argues that the split decision of the BPAI from *ex parte Sullivan* is not dispositive here because: (1) the decision is not binding precedent (Patent Owner's Response at bottom of page 21); and, (2) the claim's at issue in *ex parte Sullivan* are distinguishable from the claim here because the instant claim claims a particular thickness of the outer cover (Patent Owner's Response at top of page 22).

Ground 11: Third Party Requester's Comments received 30 May 2007

The Third Party Requester argues that the BPAI's opinion set forth cogent reasoning for combining Nesbitt and Wu (Third Party Requester's Comments at middle of page 22) and the differing limitations are not patently significant and disclosed in Nesbitt or Wu (Third Party Requester's Comments at top of page 24).

Ground 11: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 2 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu is maintained. As to the Patent Owner's first argument, the Examiner is not using *ex parte Sullivan* as binding

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precedent but as a source that discloses motivation to combine Nesbitt and Wu. Wu states a motivation to combine and this is stated again in *ex parte Sullivan* the motivation to combine.

As to the Patent Owner's second argument, Nesbitt discloses some thicknesses that are within the range of those in the instant claim. The patents at issue in *ex parte Sullivan* are not dispositive.

Proposed Third Party Requester Rejection: Ground #12.

The requester submits on page 32 in the request that claim 2 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 2 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 2	Nesbitt
A golf ball according to claim 1,	See above, Ground #6.
wherein the inner cover layer has a thickness of about 0.100 to about 0.010 inches	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
and the outer cover layer has a thickness of about 0.010 to about 0.070 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)

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the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	<p>“According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches” (col. 2, lines 50-52.)</p> <p>“This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin” (col. 3, lines 34-38.)</p>
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This rejection of claim 2 based on Nesbitt in view of Molitor ‘751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 12: Patent Owner’s Argument received 30 April 2007.

Patent Owner argues that Molitor ‘751 discloses a cover combined with an inner layer twice as thick as that as the claim at issue.

Ground 12: Third Party Requester’s Comments received 30 May 2007

The Third Party Requester does not specifically argue this rejection.

Ground 12: Examiner’s Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 2 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor ‘751 is maintained. Nesbitt discloses the limitation at issue in claim 2. Since Molitor ‘751 is used to disclose the use of a soft polymeric material as an outer cover, the thickness of its inner layer is not dispositive.

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Re. Claim 3**Proposed Third Party Requester Rejection: Ground #13**

The requester submits on pages 33-34 in the request that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Proudfit.

Claim 3 is rejected under 35 U.S.C. 102(b) as being anticipated by Proudfit as evidenced by Exhibit G "The Relationship Between Golf Ball Construction and Performance".

Below is a claim chart identifying the claim limitations and where Proudfit discloses the claim limitations.

Claim 3	Proudfit
A golf ball according to claim 1,	See above, Ground #1.
wherein the inner cover layer has a thickness of about 0.050 inches and	"The thickness of the inner layer can be within the range of about 0.0250 to 0.2875 inch to provide a total diameter of the inner layer and core within the range of about 1.550 to 1.590 inch." (col. 7, lines 37-40.) "The preferred dimensions are ... an inner layer thickness of 0.037 inch" (col. 7, lines 43-44.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer can be within the range of about 0.0450 to 0.0650 inch to provide a total ball diameter of 1.680 inch. The preferred dimensions are ... an outer layer thickness of 0.0525 inch" (col. 7, lines 40-46.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"The preferred dimensions are a core diameter of 1.500 inch, and inner layer thickness of 0.037 inch (inner layer diameter of 1.575 inch), and an outer layer thickness of 0.0525 inch (total ball diameter of 1.680 inch)." (col. 7, lines 43-47.)

As admitted by the inventor of the instant Patent under reexamination, the "golf ball designer must adhere to the rules of golf as put forth by the USGA and R & A Golf Club." See

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Exhibit G "The relationship between golf ball construction and performance". At that time, the inventor identified the rules of the two governing bodies:

(1) the ball weight must not exceed 1.62 oz, (2) the ball size must be at least 1.68 inches in diameter, (3) initial velocity must not exceed 250 ft/sec with a 2% maximum tolerance when struck at 143.8 ft/sec, (4) overall distance must not exceed 280 yards with a 6% tolerance when hit with a USGA specified driver at 160 ft/sec (clubhead speed) at a 10 degree launch angle as tested by the USGA, and (5) the ball must pass the USGA administered symmetry test, i.e. fly consistently (in distance, trajectory and time of flight) regardless of how it is placed on the tee. Id.

Thus, based on the evidence present in the record and the admission of the inventor that "the golf ball designer must adhere to the rules of golf as put forth by the USGA," Proudfit would inherently have to meet the U.S.G.A. standards in order to have a golf ball invention that would be economically viable.

This rejection of claim 3 based on Proudfit was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 13: Patent Owner's Argument received 30 April 2007

Patent Owner argues that Proudfit discloses an inner cover layer with a preferred thickness of 0.037 inches where the claim calls for this thickness to be about 0.050 inches (Patent Owner's Argument at page 26, footnote 62).

Ground 13: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not specifically argue this rejection.

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Ground 13: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 3 under 35 U.S.C. § 102(b) as being anticipated by Proudfit is maintained. Although Proudfit's preferred thickness is 0.037 inches (col. 7 lines 37-40), the range disclosed by Proudfit for this layer is 0.0250 to 0.2875 inches (col. 7 lines 37-40). The claimed thickness at issue is 0.050 inches which falls within Proudfit's range, and it is settled law that patent are relevant as prior art for all they contain (MPEP 2123).

Proposed Third Party Requester Rejection: Ground #14.

The requester submits on page 35 in the request that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 14: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 14: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

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Ground 14: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #14.**

Proposed Third Party Requester Rejection: Ground #15.

The requester submits on page 35-36 in the request that claim 3 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on page 36 the third party requester proposes where Nesbitt (passages that do not refer or mention Molitor '637) discloses the limitations of claim 3. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt with incorporation by reference of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #4.
the inner cover layer has a thickness of	"It is found that the inner layer of hard, high flexural

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about 0.050 inches and	modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches.” (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	“The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches.” (col. 3, lines 22-25.) “The outer layer of the soft resin is of a thickness of 0.0575 inches.” (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	“According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches” (col. 2, lines 50-52.) “This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin” (col. 3, lines 34-38.)

This rejection of claim 3 based on Nesbitt with incorporation by reference of Molitor ‘637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 15: Patent Owner’s Argument received 30 April 2007

The Patent Owner does not argue this rejection.

Ground 15: Third Party Requester’s Comments received 30 May 2007

The Third Party Requester’s arguments for this claim are the same as given *supra* at

“Ground 3: Third Party Requester’s Comments.”

Ground 15: Examiner’s Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. See "Ground 3: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #16.

In the alternative, the requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and portions of the Nesbitt reference which discloses, teaches or suggests the claim limitations.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #4.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches" (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural

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modulus resin" (col. 3, lines 34-38.)
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This rejection of claim 3 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 16: Patent Owner's Argument received 30 April 2007

Patent Owner argues that the limitation of claim 3 - thickness of the inner layer cover of 0.055 inches - is below the minimum value that Molitor '637 discloses as possible for their cover (Patent Owner's Response at bottom of page 17).

Ground 16: Third Party Requester's Comments received 30 May 2007

Third Party Requester's counter argument is that even though Molitor '673 teaches a foamed cover layer with a thickness less than 0.06 inches could not be injected molded, one skilled in the art would still look to Molitor '637 for cover materials within the scope of the claimed range of Nesbitt (Third Party Requester's Comments at middle of page 21).

Ground 16: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 3 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained. Since Nesbitt explicitly references Molitor '637 at col. 3, lines 56-61, one of ordinary skill would look to Molitor '637 for material to be used as a cover and use the thickness

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ranges of Nesbitt for the material. Whether the thickness of the cover could be injected molded is not at issue since covers with similar thicknesses as that claimed are known in the art.

Proposed Third Party Requester Rejection: Ground #17.

The requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations where the Nesbitt reference discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionic thermoset materials, for the use as an outer layer.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #5.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020 inches and 0.070 inches." (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	"The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches." (col. 3, lines 22-25.) "The outer layer of the soft resin is of a thickness of 0.0575 inches." (col. 3, lines 39-40.)
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	"According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches" (col. 2, lines 50-52.) "This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a

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	dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin” (col. 3, lines 34-38.)
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This rejection of claim 3 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 17: Patent Owner's Argument received 30 April 2007

Patent Owner argues that the split decision of the BPAI from *ex parte Sullivan* is not dispositive here because: (1) the decision is not binding precedent (Patent Owner's Response at bottom of page 21); and, (2) the claim's at issue in *ex parte Sullivan* are distinguishable from the claim here because the instant claim claims a particular thickness of the outer cover (Patent Owner's Response at top of page 22).

Ground 17: Third Party Requester's Comments received 30 May 2007

The Third Party Requester argues that the BPAI's opinion set forth cogent reasoning for combining Nesbitt and Wu (Third Party Requester's Comments at middle of page 22) and the differing limitations are not patently significant and disclosed in Nesbitt or Wu (Third Party Requester's Comments at top of page 24).

Ground 17: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Examiner agrees with the comments of the Third Party Requester, and the rejection of claim 3 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu is maintained. As to the Patent Owner's first argument, the Examiner is not using *ex parte Sullivan* at binding precedent but as source that discloses motivation to combine Nesbitt and Wu. Wu states a motivation to combine which is stated again in *ex parte Sullivan* the motivation to combine.

As to the Patent Owner's second argument, Nesbitt discloses some thicknesses that are within the range of those in the instant claim. The patents at issue in *ex parte Sullivan* are not dispositive.

Proposed Third Party Requester Rejection: Ground #18.

The requester submits on page 36 in the request that claim 3 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 3	Nesbitt
A golf ball according to claim 1, wherein	See above, Ground #6.
the inner cover layer has a thickness of about 0.050 inches and	"It is found that the inner layer of hard, high flexural modulus resinous material such as Surlyn® resin type 1605, is preferably of a thickness in a range of 0.020

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	inches and 0.070 inches.” (col. 3, lines 19-23.)
the outer cover layer has a thickness of about 0.055 inches,	<p>“The thickness of the outer layer or cover 16 of soft, low flexural modulus resin such as Surlyn type 1855, may be in the range of 0.020 inches and 0.100 inches.” (col. 3, lines 22-25.)</p> <p>“The outer layer of the soft resin is of a thickness of 0.0575 inches.” (col. 3, lines 39-40.)</p>
the golf ball having the properties required by the U.S.G.A. and having an overall diameter of 1.680 inches or more.	<p>“According to the United States Golf Association Rules, the minimum diameter prescribed for a golf ball is 1.680 inches” (col. 2, lines 50-52.)</p> <p>“This center or core 12 and inner layer 14 of hard resinous material in the form of a sphere is then remolded into a dimpled golf ball of a diameter of 1.680 inches minimum with an outer or cover layer 16 of a soft, low flexural modulus resin” (col. 3, lines 34-38.)</p>

This rejection of claim 3 based on Nesbitt in view of Molitor ‘751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 18: Patent Owner’s Argument received 30 April 2007

Patent Owner argues that Molitor ‘751 discloses a cover combined with an inner layer twice as thick as that as the claim at issue.

Ground 18: Third Party Requester’s Comments received 30 May 2007

The Third Party Requester does not specifically argue this rejection.

Ground 18: Examiner’s Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 3 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751 is maintained. Nesbitt discloses the limitation at issue in claim 2. Since Molitor '751 is used to disclose the use of a soft polymeric material as an outer cover, the thickness of its inner layer is not dispositive.

Re. Claim 4

Proposed Third Party Requester Rejection: Ground #19.

The requester submits on page 37 in the request that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan '831.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 19: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 19: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

Ground 19: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

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Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #19.**

Proposed Third Party Requester Rejection: Ground #20.

The requester submits on pages 37-39 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Molitor '637.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '637:

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material. As pointed out in the request on pages 38-39:

Proudfit teaches that "A number of golfers, primarily professional and low handicap golfers, prefer balata covered balls because of the higher spin rate, control, "feel," and "click" which balata provides." (Proudfit, col. 1, lines 49-52.) While Proudfit may not disclose the use of a polyurethane material in the outer cover layer it would have been obvious to modify Proudfit to include an outer cover layer including a polyurethane material rather than the balata disclosed therein because Proudfit seeks to solve the same problems associated with Surlyn-covered golf balls that polyurethane had been used to solve for years. Moreover, polyurethane has advantages over both balata and Surlyn as would have been readily appreciated by those skilled in the art at the time of the invention. Moreover, as recognized by the inventor himself, the particular materials used in the golf balls were not as important as the mechanical properties of those materials. (See Exhibit G at 334.) Because those skilled in the art would look to the mechanical properties of the materials when determining whether certain materials can be substituted for one another, those skilled in the art would recognize that the Estane polyurethane taught by Molitor '637 (having a flexural modulus of about 25,000 psi) and the polymeric outer cover layer material of Proudfit (which has a modulus of between 20,000 and 25,000 psi) would have been substitutable for one another. (Compare Exhibit J with Proudfit, col. 6, lines 28-31 .) This would have further suggested to those skilled in the art that the Soft polymeric materials taught by Molitor '637, including, for example, the relatively soft, low modulus polyurethane material

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would have been substitutable for the soft polymeric outer cover layer as taught by Proudfit. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the balata-based outer cover layer of Proudfit to include the polyurethane outer cover layer of Molitor '637 because this polyurethane was a well known substitute to balata and gives a number of advantages over balata as would have been readily appreciated by those skilled in the art. These advantages include: (1) improved processability; (2) improved durability when compared to balata; (3) cost-effectiveness when compared to balata; and (4) having a good "click" and "feel." All of this would have led one of ordinary skill in the art to replace the soft balata-based outer cover layer of Proudfit with the soft polyurethane outer cover layer material of Molitor '637 at the time of the alleged invention.

This rejection of claim 4 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 20: Patent Owner's Argument received 30 April 2007

Patent Owner argues that: (1) Proudfit does not disclose the claimed Shore D hardness values for the inner and outer cover layers (Patent Owner's Response bottom of page 26 to middle of page 27); and, (2) no motivation to combine since Proudfit's and Molitor '637 thicknesses of their covers are incompatible and the Examiner is not free to ignore what the two references teach with respect to thickness (Patent Owner's Response bottom of page 27).

Ground 20: Third Party Requester's Comments received 30 May 2007

Third Party Requester counter argues that Proudfit inherently discloses the claimed Shore D hardness value for its cover's layers (Third Party Requester's Comments at bottom of page 29 to top of page 30) and thicknesses of the covers of the two references overlap (Third Party

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Requester's Comments at middle of page 30). Motivation here meets the *KSR* standard (Third Party Requester's Comments at middle to bottom of page 30).

Ground 20: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained. As to Patent Owner's first argument, the Examiner considers Proudfit to incorporate the claimed Shore D hardness values for the covers as discussed for Ground 1, *supra*.

As to the Patent Owner's second argument, motivation to combine is supplied, *inter alia*, in the abstract of Molitor '637 where ""feel"" characteristics of the ball are changed by its cover. The thicknesses of the covers' layers is not a barrier to combining these references because Proudfit's range of thicknesses overlaps with the claimed values in Sullivan '130.

Proposed Third Party Requester Rejection: Ground #21.

The requester submits on pages 39-40 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Wu.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Wu.

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the

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outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material. As pointed out in the request on pages 39:

Proudfit teaches that: "A number of golfers, primarily professional and low handicap golfers, prefer balata covered balls because of the higher spin rate, control, "feel," and "click" which balata provides." (Proudfit, col. 1, lines 49-52.) While Proudfit may not disclose the use of a polyurethane material in the outer cover layer it would have been obvious to modify Proudfit to include an outer cover layer including a polyurethane material rather than the balata disclosed therein because Proudfit seeks to solve the same problems associated with Surllyn-covered golf balls that polyurethane had been used to solve for years. Moreover, polyurethane has advantages over both balata and Surllyn as would have been readily appreciated by those skilled in the art at the time of the invention.

Moreover, as admitted by the inventor and pointed out on page 38 in the request: "the particular materials used in the golf balls were not as important as the mechanical properties of those materials. (See Exhibit G at 334.)" Thus, those skilled in the art would look to the mechanical properties of the materials when determining whether certain materials can be substituted for one another, and the actual chemical compounds and chemical properties are not critical so long as processes manufacturing the golf ball from said chemicals can be economically feasible.

As pointed out in the request on pages 39-40: Wu teaches that:

the problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46 (emphasis added).)

Additionally, the request on page 40 has pointed out that:

as the inventor of the '130 patent had indicated in a 1994 publication, golf ball designers understood that the mechanical properties of the layers impacted the

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performance of the golf ball more than the materials themselves. (Exhibit G at 334.) Additionally, Wu's polyurethane material inherently has a flexural modulus of about 23,000 psi. (Decl. of Jeffrey L. Dalton at ¶ 7.) Proudfit's outer cover layer material has a flexural modulus of between about 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.)

Therefore the request concludes on the same page:

one of ordinary skill in the art would have appreciated that using Wu's polyurethane as Proudfit's outer cover layer would have provided similar playability characteristics as well as numerous advantages including, for example, durability. Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata-based outer cover layer with an outer cover layer made of soft polyurethane material because Wu's polyurethane has similar mechanical properties when compared to Proudfit's outer cover layer material and provides numerous advantages over balata while exhibiting the "click" and "feel" of balata.

This rejection of claim 4 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 21: Patent Owner's Argument received 30 April 2007

Patent Owner argues: (1) Proudfit does not disclose the claimed Shore D hardness values for the inner and outer cover layers (Patent Owner's Response bottom of page 26 to middle of page 27); and, (2) no motivation to combine since Proudfit's and Molitor '637 thicknesses of their covers are incompatible and the Examiner is not free to ignore what the two references teach with respect to thickness (Patent Owner's Response bottom of page 27).

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Ground 21: Third Party Requester's Comments received 30 May 2007

Third Party Requester counter argues that Proudfit inherently discloses the claimed Shore D hardness value for its cover's layers (Third Party Requester's Comments at bottom of page 29 to top of page 30) and thicknesses of the covers of the two references overlap (Third Party Requester's comments at middle of page 30). Motivation here meets the *KSR* standard (Third Party Requester's Comments at middle to bottom of page 30).

Ground 21: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Wu is maintained. As to Patent Owner's first argument, the claimed Shore hardness value is considered to be inherent in the disclosure of Proudfit as explained in the "Examiner's Response" for Ground 1, *supra*.

As to the Patent Owner's second argument, motivation to combine is supplied, *inter alia*, by Wu where it is stated that "'click'" and "'feel'" characteristics can be combined with durability by use of a polyurethane material in a ball's cover (Wu at col. 1 lines 34-39; col. 2 lines 39-44). The thicknesses of the covers' layers is not a barrier to combining these references because Proudfit's range of thicknesses overlaps with the claimed values in Sullivan '130.

Proposed Third Party Requester Rejection: Ground #22.

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The requester submits on pages 41-42 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) Proudfit in view of Molitor '751.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '751.

What Proudfit discloses, teaches and suggest is discussed above in Ground #1 and is incorporated herein. Claim 4, which depends from claim 1, further limits the material used in the outer layer to be a polyurethane based material. Proudfit lacks disclosing using a polyurethane based material.

As discussed in the request on page 41:

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, is, the Molitor col. 2, lines 33-49.) In explaining what a "two-piece" golf ball '751 patent teaches that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.) Proudfit teaches a "two-piece" golf ball that fits within this definition. Molitor '751 explains that the advantages of using a cover including a soft polyurethane material on a two-piece golf ball, such as the golf ball of Proudfit, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.) Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751, col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See [e.g.] U.S. Patent No. 6,905,648, Table 19 (attached hereto as Exhibit L).) A cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

Thus, the request concludes on page 42:

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it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the soft balata outer cover layer of Proudfit with an outer cover layer including a soft polyurethane material as taught by of Molitor '751 to provide golf balls that have "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

This rejection of claim 4 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 22: Patent Owner's Argument received 30 April 2007

Patent Owner argues: (1) Proudfit does not disclose the claimed Shore D hardness values for the inner and outer cover layers (Patent Owner's Response top of page 30 to middle of page 30); and, (2) no motivation to combine Proudfit's and Molitor '751 because one of ordinary skill would not be able to convert Molitor '751's Shore C value to a Shore D value and Molitor '751 suggest combining with a ball having different structure than the ball of Proudfit (Patent Owner's Response middle of page 30).

Ground 22: Third Party Requester's Comments received 30 May 2007

Third Party Requester counter argues that Shore C and Shore D hardness values can be converted (Third Party Requester's Comments at bottom of page 32 to top of page 33). Further, the ball suggested for combination with the cover of Molitor '751 is Nesbitt's ball which is, in fact, similar in construction to the ball of Nesbitt (Third Party Requester's Comments at middle to bottom of page 33).

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Ground 22: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '751 is maintained. As to Patent Owner's first argument, the claimed Shore hardness value is considered to be inherent in the disclosure of Proudfit as explained in the "Examiner's Response" for Ground 1, *supra*.

As to Patent Owner's second argument, Examiner considers the two hardness scales (C and D) to be correlated as explained in the "Examiner's Response" for Ground 6, *supra*. Motivation to combine is explained in the "Examiner's Response" for Ground 6, *supra*.

Proposed Third Party Requester Rejection: Ground #23.

The requester submits on page 42-44 in the request that claim 4 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 20 through 24 the third party requester proposes that claim 1 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. In the request on pages 42-43 the third party requester proposes where Nesbitt (passages that mention Molitor '637) discloses the limitations of claim 4. The third party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

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Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane based material.

As mentioned above in Ground #4 which is incorporated herein, Nesbitt incorporates by reference Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt incorporating by reference Molitor '637 inherently teaches using

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as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover,

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as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

This rejection of claim 4 based on Nesbitt incorporating by reference of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 23: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue this rejection.

Ground 23: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's arguments for this claim are the same as given *supra* at "Ground 3: Third Party Requester's Comments."

Ground 23: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. See "Ground 3: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #24.

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In the alternative, the requester submits on pages 42-44 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane based material.

As mentioned above in Ground #4 which is incorporated herein, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence,

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Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover,

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as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 4 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 24: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 4: Patent Owner's Argument," *supra*.

Ground 24: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 4: Third Party Requester's Comments."

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Ground 24: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained.. For the response see "Ground 4: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #25.

The requester submits on pages 44-46 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane based material. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

As pointed out in the request on page 44:

Wu teaches that: The problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46.)

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As pointed out in the request on page 45:

Moreover, as recognized by the inventor himself, the particular materials used in the golf balls were not as important as the mechanical properties of those layers. (See Exhibit G at 334.) The Surlyn® 1855 (now Surlyn® 9020) taught in Nesbitt's primary example has a Shore D hardness of 55 and a flexural modulus of about 14,000 psi. Wu's polyurethane material has a Shore D hardness of 58 as measured on the surface of the golf ball. (Exhibit C (showing that the polyurethane material used as the outer cover layer on the Titleist Professional™ golf ball has a Shore D hardness of 58); see also Decl. of Jeffrey L. Dalton at ¶ 6.) In addition to being soft, Wu's polyurethane is a relatively low flexural modulus material. For example, this material has a flexural modulus of about 23,000 psi as tested in accordance with ASTM standards. (Decl. of Jeffrey L. Dalton at ¶7.) This is very similar to the hardness of the Surlyn® 1855 used in one example taught by Nesbitt.

Therefore, the request on pages 44, 45 and concludes:

it would have been obvious to modify the golf ball disclosed in Nesbitt to include an outer cover made of Wu's soft polyurethane material because it would exhibit an improved cut resistance over Surlyn or balata cover layers while providing a golf ball having the "click" and "feel" of a balata-covered ball; those skilled in the art would have been led to substitute the polyurethane of Wu for the soft ionomer cover layer of Nesbitt because such would give the same or improved playability properties and would improve durability properties; and it would have been obvious to modify the golf ball of Nesbitt to include an outer cover layer using the polyurethane disclosed by Wu because it provides a golf ball having a good "click" and "feel" and exhibits improved shear resistance and cut resistance when compared to balata-covered balls.

This rejection of claim 4 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 25: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 5: Patent Owner's Argument," *supra*.

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Ground 25: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 5: Third Party Requester's Comments."

Ground 25: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu is maintained.. For the response see "Ground 5: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #26.

The requester submits on pages 46-47 in the request that claim 4 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 4 depends from claim 1 and further limits the outer layer material to a polyurethane base material.

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As pointed out in the request on page 46-47:

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, is, the Molitor col. 2, lines 33-49.) In explaining what a "two-piece" golf ball '751 patent explains that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.) Molitor explains that the advantages of using this cover on a two-piece golf ball, such as the golf ball of Nesbitt, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751 at col. 2, lines 61-68.) Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751 at col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See [e.g.] U.S. Patent No. 6,905,648, Table 19, Exhibit L.) Therefore, a cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

The request on page 47 makes the conclusion:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft outer cover layer of Nesbitt and replace it with an outer cover made of the soft polyurethane materials taught by Molitor '751 to provide a golf ball that exhibits "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.) Therefore, Nesbitt when taken in view of Molitor '751 render claim 4 obvious under 35 U.S.C. § 103(a). These references raise substantial new questions of patentability that were not previously considered by the PTO. Therefore, reexamination of claim 4 of the '130 patent is proper.

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This rejection of claim 4 based on Nesbitt in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 26: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 6: Patent Owner's Argument," *supra*.

Ground 26: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 6: Third Party Requester's Comments."

Ground 26: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 4 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '751 is maintained.. For the response see "Ground 6: Examiner's Response to the Argument and Comments," *supra*.

Re. Claim 5

Proposed Third Party Requester Rejection: Ground #27.

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The requester submits on page 49-50 in the request that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan '831.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 27: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 27: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

Ground 27: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #27.**

Proposed Third Party Requester Rejection: Ground #28.

The requester submits on pages 50-54 in the request that claim 5 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 50 through 54 the third party requester proposes that claim 5 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. The third

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party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt incorporating by reference Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt (primary) with Molitor '637 (incorporated by reference)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-17.)</p>
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere ." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends" (Nesbitt, col. 5, lines 6-9.)</p>
a Shore D hardness of about 60 or more molded over said spherical core,	Nesbitt: "[I]nner cover 14 of molded hard , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-

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	<p>38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer having	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>

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molded over said spherical intermediate ball to form a multi-layer golf ball,	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)
said outer cover layer comprising a polyurethane based material.	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

As mentioned above, Nesbitt incorporating by reference Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from **about 5[%] to about 15% by weight of unsaturated carboxylic acid.**" '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight

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percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". **A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64.** Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

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See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Ground 28: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue this rejection.

Ground 28: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's arguments for this claim are the same as given *supra* at "Ground 3: Third Party Requester's Comments."

Ground 28: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. See "Ground 3: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #29.

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In the alternative, the requester submits on pages 50-54 in the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 5	Nesbitt (primary) with Molitor '637 (teaching)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-17.)</p>
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere ." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends" (Nesbitt, col. 5, lines 6-9.)</p>
a Shore D hardness of about 60 or more molded over said spherical core,	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p>

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	<u>Exhibit I</u> : SURLYN 8940 has a Shore D hardness of 65.
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer having	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of 64 or less	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
molded over said spherical intermediate ball to form a multi-layer golf ball,	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then remolded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)

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<p>said outer cover layer comprising a polyurethane based material.</p>	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>
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As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial

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Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". **A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64.** Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

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In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 5 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 29: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 4: Patent Owner's Argument" and "Ground 24: Patent Owner's Argument," *supra*.

Ground 29: Third Party Requester's Comments received 30 May 2007

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The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 4: Third Party Requester's Comments" and "Ground 24: Third Party Requester's Comments."

Ground 29: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '637 is maintained.. For the response see "Ground 4: Examiner's Response to the Argument and Comments" and "Ground 24: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #30.

The requester submits on pages 54-56 in the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Wu discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionic thermoset materials, for the use as an outer layer.

Claim 5	Nesbitt (primary) mentioning Molitor '637 with Wu (teaching)
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A multi-layer golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere ." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of about 60 or more molded over said spherical core,	<u>Nesbitt</u> : "[I]nner cover 14 of molded hard , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont d Nemours." (Nesbitt, col. 2, ll. 36-38.) <u>Per the '130 Patent</u> : "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.) <u>Exhibit I</u> : SURLYN 8940 has a Shore D hardness of 65 .
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<u>Nesbitt</u> : "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layer 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.) <u>Molitor '637</u> : Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins : SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.) See below for further explanation of how the % by weight and chemical composition limitations are taught.
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer having	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner ply or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.) <u>Wu</u> : "Preferably, a golf ball is made in accordance with the

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	present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66.)
a Shore D hardness of 64 or less	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p><u>Wu</u>: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, <i>inter alia</i>, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention, More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38.)</p> <p>See below for more explanation of how Wu teaches and/or suggests the Shore D hardness of 64 or less limitation explanation.</p>
molded over said spherical intermediate ball to form a multi-layer golf ball	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner play or layer 14" (Nesbitt, col. 2, lines 43-47.)
said outer cover layer comprising a polyurethane based material.	<p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p><u>Wu</u>: "[t]he present invention is a golf ball product made from</p>

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	<p>a polyurethane prepolymer cured with a slow-reacting curing agent selected from the group of slow-reacting polyamine curing agents or difunctional glycols. The term "golf ball product" as used in the specification and claims means a cover, a core, a center or a one-piece golf ball. The cover of a golf ball made in accordance with the present invention has been found to have good shear resistance, cut resistance, durability and resiliency. Preferably, the polyurethane composition of the present invention is used to made the cover of a golf ball." (Wu, col. 2, ll. 33-44.)</p>
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As mentioned above, Nesbitt mentioning Molitor '637 teaches the use of particular polyurethane materials for the use as an outer layer. Wu teaches that polyurethane was being used as the outer layer of golf ball *circa* 1993. Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; **5,334,673**; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of

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the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 5 based on Nesbitt mentioning Molitor '637 in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 30: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 5: Patent Owner's Argument" and "Ground 25: Patent Owner's Argument," *supra*.

Ground 30: Third Party Requester's Comments received 30 May 2007

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The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 5: Third Party Requester's Comments" and "Ground 25: Third Party Requester's Comments."

Ground 30: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '637 is maintained.. For the response see "Ground 5: Examiner's Response to the Argument and Comments" and "Ground 25: Examiner's Response to the Argument and Comments" *supra*.

Proposed Third Party Requester Rejection: Ground #31.

The requester submits on pages 57-58 in the request that claim 5 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 5	Nesbitt (primary) mentioning Molitor '637
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A golf ball comprising:	"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere ." (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer having	"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)
a Shore D hardness of 60 or more molded over said spherical core,	<u>Nesbitt</u> : "[I]nner cover 14 of molded hard , high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.) <u>Per the '130 Patent</u> : "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.) <u>Exhibit I</u> : SURLYN 8940 has a Shore D hardness of 65 .
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<u>Nesbitt</u> : "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.) <u>Molitor '637</u> : Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins : SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.) See below for further explanation of how the % by weight and chemical composition limitations are taught.
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer having	"An outer layer , ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
a Shore D hardness of about 64	<u>Nesbitt</u> : "Reference is made to application Ser. No. 155,658 of

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or less	<p>Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
molded over said spherical intermediate ball to form a multi-layer golf ball,	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner play or layer 14" (Nesbitt, col. 2, lines 43-47.)
said outer cover layer comprising a relatively soft polymeric material selected from the group consisting of non-ionomeric thermoplastic and thermosetting elastomers.	Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.

As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-

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15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) **ionomer resin having a flexural modulus of about 51,000 psi.**" See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers

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of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

As shown above in the claim chart, Nesbitt mentioning Molitor '673 suggests the use of a soft outer cover layer including a polyurethane material. In an analogous golf ball, Molitor '751 teaches that:

It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55.

(Molitor '751, col. 2, ll. 33-49 (emphasis added)).

Moreover, in explaining what constitutes a two-piece golf ball, Molitor '751 teaches that:

The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls have non-wound cores.

(Molitor '751, col. 3, ll. 7-12 (emphasis added)).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

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How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request on page 28

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft non-ionomeric polymeric outer cover layer incorporated by Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

Moreover, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to

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substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 5 based on Nesbitt mentioning Molitor '637 in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 31: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 6: Patent Owner's Argument" and "Ground 26: Patent Owner's Argument," *supra*.

Ground 31: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 6: Third Party Requester's Comments" and "Ground 26: Third Party Requester's Comments."

Ground 31: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '751 is maintained.. For the response see "Ground 6: Examiner's Response to the Argument and Comments" and "Ground 26: Examiner's Response to the Argument and Comments," *supra*.

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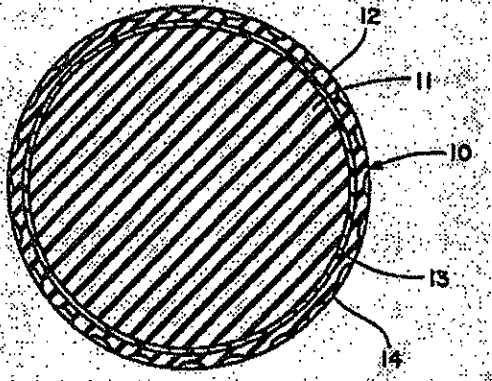
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Proposed Third Party Requester Rejection: Ground #32.

The requester submits on pages 58-62 in the request that claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Molitor '637.

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
A multi-layer golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)
a spherical core;	 <p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the shape of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two- layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)</p>
an inner cover layer having	"FIG. 1 illustrates a two-piece golf ball 10 which

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	includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)								
a Shore D hardness of about 60 or more	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6</p> <table border="1"> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th></tr> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." <p>(Proudfit, col. 8, ll. 32-38.)</p>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Sodium-Surlyn 8940	75%								
Zinc-Surlyn 9910	25%								
molded over said spherical core,	<p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." <p>(Proudfit, col. 8, ll. 32-38.)</p>								
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6</p> <table border="1"> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th></tr> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer</p>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Sodium-Surlyn 8940	75%								
Zinc-Surlyn 9910	25%								

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	<p>resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
an outer cover layer having a Shore D hardness of about 64 or less	<p>"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p>						

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	<p>“... an outer layer of soft material such as balata or a blend of balata and other elastomers.” (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.</p> <p style="text-align: center;">TABLE 7 Composition of Outer Layer (Parts by Weight)</p> <table> <tr> <td>Trans Polyisoprene (TP-301)</td><td>60.00</td></tr> <tr> <td>Polybutadiene</td><td>40.00</td></tr> <tr> <td>Zinc Oxide</td><td>5.00</td></tr> <tr> <td>Titanium Dioxide</td><td>17.00</td></tr> <tr> <td>Ultramarine Blue color</td><td>.50</td></tr> <tr> <td>Zinc DiAcrylate</td><td>31.00</td></tr> <tr> <td>Peroxide (V50x 250 XL)</td><td>2.50</td></tr> <tr> <td>Total</td><td>160.00</td></tr> </table> <p>Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.</p>	Trans Polyisoprene (TP-301)	60.00	Polybutadiene	40.00	Zinc Oxide	5.00	Titanium Dioxide	17.00	Ultramarine Blue color	.50	Zinc DiAcrylate	31.00	Peroxide (V50x 250 XL)	2.50	Total	160.00
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Zinc DiAcrylate	31.00																
Peroxide (V50x 250 XL)	2.50																
Total	160.00																
molded over said spherical intermediate ball to form a multi-layer golf ball,	<p>“A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls.” (Proudfit, col. 5, ll. 17-27.)</p>																
the outer layer comprising polyurethane based material.	<p>“... an outer layer of soft material such as balata or a blend of balata and other elastomers.” (col. 5, lines 15-17.) Also, see below.</p>																

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As pointed out in the request on page 61 and 62:

While Proudfit may not expressly disclose the use of polyurethane as an outer cover material, it would have been obvious given that "[t]he patent literature is replete with proposed cover formulations seeking to improve upon the balata and ionomer covers [including] [p]olyurethane" (See Molitor '751, col. 2, lines 9-12.) Soft polyurethane materials had been known to be a substitute for balata covers for decades prior to the filing of the '130 patent.

For example, Molitor '637 discloses the use of polyurethane material as a soft polymeric material that may be used as an outer cover layer of a golf ball. (See Molitor '637, col. 5, lines 33-41; col. 18, Examples 16 and 17.) One exemplary polyurethane material used by Molitor as an outer cover material includes Estane 58133.

As was readily appreciated by those skilled in the art--including the inventor of the '130 patent--the types of materials used in a golf ball are not as critical to a golf ball's playability as are the mechanical properties of those materials. (See Exhibit G at 334.) The Estane 58133 is a relatively soft material and has a Shore D hardness of 55 and is also a low flexural modulus material having a modulus of about 25,000 psi. (See Exhibit J.) Proudfit's outer cover layer is also relatively soft and has a flexural modulus between 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.) Due to the similarities between these two materials, the ordinarily skilled artisan would have recognized the substitutability of these two materials as well as the benefits of using polyurethane as an outer cover material.

On page 62, the request concludes:

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the balata-based outer cover layer of Proudfit to include the Estane polyurethane outer cover layer material of Molitor '637 because such was a well known substitute to balata and gives a number of advantages over balata as would have been readily appreciated by those skilled in the art. These advantages include: (1) improved processability; (2) improved durability when compared to balata; (3) cost-effectiveness when compared to balata; and (4) having a good "click" and "feel." (See *supra* [regarding the what "click" and "feel" mean to a golfer]) All of this would have led one of ordinary skill in the art to replace the soft balata outer cover layer of Proudfit with the soft polyurethane outer cover layer of Molitor '637 at the time of the alleged invention.

This rejection of claim 5 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Ground 32: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 20: Patent Owner's Argument," *supra*.

Ground 32: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 20: Third Party Requester's Comments."

Ground 32: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Molitor '637 is maintained.. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 20: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #33.

The requester submits on pages 62-64 in the request that claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Wu.

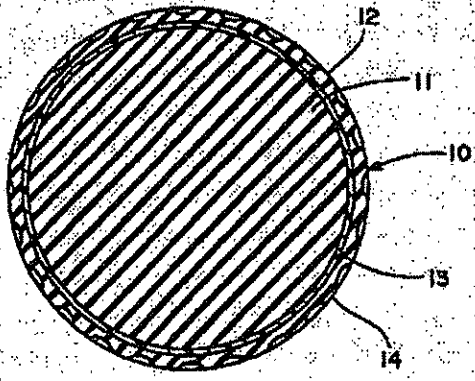
Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Wu.

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Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
A multi-layer golf ball comprising:	<p>"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)</p>
a spherical core;	 <p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the same of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two-layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)</p>
an inner cover layer having	<p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)</p>
a Shore D hardness of about 60 or more	<p>The composition of the inner cover layer is described in Table 6.</p>

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	<p style="text-align: center;">TABLE 6</p> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
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molded over said spherical core,	<p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>						
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6</p> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
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	<p>properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table border="1"> <thead> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc Surlyn 9910</td><td>25%</td></tr> </tbody> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium Surlyn 8940	75%	Zinc Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium Surlyn 8940	75%						
Zinc Surlyn 9910	25%						
an outer cover layer having a Shore D hardness of about 64 or less	<p>"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.</p>						

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	<p style="text-align: center;">TABLE 7 Composition of Outer Layer (Parts by Weight)</p> <table> <tr> <td>Trans Polyisoprene (TP-301)</td><td>60.00</td></tr> <tr> <td>Polybutadiene</td><td>40.00</td></tr> <tr> <td>Zinc Oxide</td><td>5.00</td></tr> <tr> <td>Titanium Dioxide</td><td>17.00</td></tr> <tr> <td>Ultramarine Blue color</td><td>.50</td></tr> <tr> <td>Zinc DiAcrylate</td><td>35.00</td></tr> <tr> <td>Peroxide (Varox 230-XL)</td><td>2.50</td></tr> <tr> <td>Total</td><td>160.00</td></tr> </table> <p>Note that Trans PolyIsoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.</p>	Trans Polyisoprene (TP-301)	60.00	Polybutadiene	40.00	Zinc Oxide	5.00	Titanium Dioxide	17.00	Ultramarine Blue color	.50	Zinc DiAcrylate	35.00	Peroxide (Varox 230-XL)	2.50	Total	160.00
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Total	160.00																
molded over said spherical intermediate ball to form a multi-layer golf ball,	<p>"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)</p>																
the outer layer comprising polyurethane based material.	<p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Also, see below.</p>																

As pointed out in the request on pages 62 and 63:

... Proudfit teaches a golf ball having a two-piece cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the

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use of a polyurethane material as the outer cover layer of a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the soft balata outer cover layer of Proudfit to include the soft polyurethane material taught by Wu. Wu teaches that: "The problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46.) As the inventor of the '130 patent had indicated in a 1994 publication, golf ball designers understood that the mechanical properties of the layers impacted the performance of the golf ball more than the materials themselves. (Exhibit G at 334.) Additionally, Wu's polyurethane material inherently has a flexural modulus of about 23,000 psi as measured in accordance with ASTM standards. (Decl. of Jeff Dalton at ¶ 7.) Proudfit's outer cover layer material has a flexural modulus of between about 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31.) Thus, one of ordinary skill in the art would have appreciated that using Wu's polyurethane as Proudfit's outer cover layer would have provided similar playability characteristics as well as numerous advantages including, for example, durability.

Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Moreover, the replacing the balata-material taught by Proudfit would have been obvious to those skilled in the art prior to November 9, 1995 because before that time, the Titleist Professional™ golf ball, which had used Wu's polyurethane material, had replaced balata-covered balls as the market leader. (See Exhibit C; see also Decl. of Jeffery L. Dalton at ¶¶ 3-4.)

On page 64 the request concludes with:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata outer cover layer with an outer cover layer made of soft polyurethane material because polyurethane provides numerous advantages over balata while exhibiting the "click" and "feel" of balata.

This rejection of claim 5 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

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Ground 33: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 21: Patent Owner's Argument," *supra*.

Ground 33: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 21: Third Party Requester's Comments."

Ground 33: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Molitor '637 is maintained.. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 21: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #34.

The requester submits on pages 64-65 in the request that claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Molitor '751.

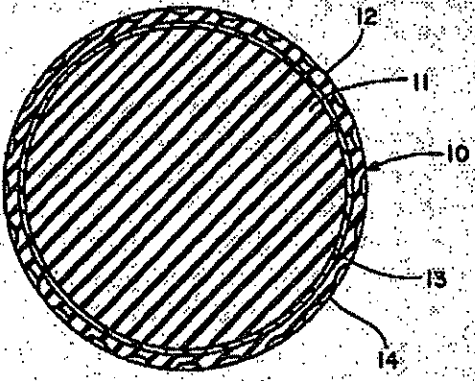
Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '751.

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Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 5	Proudfit
A multi-layer golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)
a spherical core;	 <p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the same of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two- layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)</p>
an inner cover layer having	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)
a Shore D hardness of about 60 or more	The composition of the inner cover layer is described in Table 6.

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	<p style="text-align: center;">TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
molded over said spherical core,	<p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>						
said inner cover layer comprising an ionomeric resin including no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						

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	<p>properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium- Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc- Surlyn 9910</td><td>25%</td></tr> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium- Surlyn 8940	75%	Zinc- Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium- Surlyn 8940	75%						
Zinc- Surlyn 9910	25%						
an outer cover layer having a Shore D hardness of about 64 or less	<p>"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below:</p>						

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	<p style="text-align: center;">TABLE 7 Composition of Outer Layer (Parts by Weight)</p> <table border="1"> <tr><td>Trans Polyisoprene (TP-301)</td><td>60.00</td></tr> <tr><td>Polybutadiene</td><td>40.00</td></tr> <tr><td>Zinc Oxide</td><td>5.00</td></tr> <tr><td>Thiuram Disulfide</td><td>17.00</td></tr> <tr><td>Ultramarine Blue color</td><td>.50</td></tr> <tr><td>Zinc Diacrylate</td><td>35.00</td></tr> <tr><td>Peroxide (Varco 230 XL)</td><td>2.50</td></tr> <tr><td>Total</td><td>160.00</td></tr> </table> <p>Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.</p>	Trans Polyisoprene (TP-301)	60.00	Polybutadiene	40.00	Zinc Oxide	5.00	Thiuram Disulfide	17.00	Ultramarine Blue color	.50	Zinc Diacrylate	35.00	Peroxide (Varco 230 XL)	2.50	Total	160.00
Trans Polyisoprene (TP-301)	60.00																
Polybutadiene	40.00																
Zinc Oxide	5.00																
Thiuram Disulfide	17.00																
Ultramarine Blue color	.50																
Zinc Diacrylate	35.00																
Peroxide (Varco 230 XL)	2.50																
Total	160.00																
molded over said spherical intermediate ball to form a multi-layer golf ball,	<p>"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)</p>																
the outer layer comprising polyurethane based material.	<p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Also, see below.</p>																

As pointed out in the request on pages 64 and 65:

...Proudfit teaches a golf ball having a two-piece cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the use

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of a polyurethane material as the outer cover layer for a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Proudfit's golf ball by replacing the soft balata outer cover layer with the soft polyurethane outer cover layer taught by Molitor '751.

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, col. 2, lines 33-49.) In explaining what a "two-piece" golf ball is, the Molitor '751 patent explains that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and Other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.)

Proudfit teaches a "two-piece" golf ball that fits within this definition. Molitor '751 explains that the advantages of using a cover layer including a soft polyurethane material on a two-piece golf ball, such as the golf ball of Proudfit, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751, col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See U.S. Patent No. 6,905,648, Table 19 (Exhibit L.) A cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

On page 65 the request concludes:

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the soft balata outer cover layer of Proudfit with the soft outer cover layer including a soft polyurethane material as taught by Molitor '751 to provide golf balls that have "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

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This rejection of claim 5 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 34: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 22: Patent Owner's Argument," *supra*.

Ground 34: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 22: Third Party Requester's Comments."

Ground 34: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 5 under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Molitor '751 is maintained.. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 22: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #35.

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The requester submits on pages 67-68 in the request that claim 6 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Sullivan.

This rejection is not adopted for the reasoning that based on the prosecution history of the '130 Patent's copendency Sullivan '831 (Sullivan) is not prior art, see the Decision granting reexamination, mailed 04-06-06, para. 9.

Ground 35: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue the non-adoption of this rejection.

Ground 35: Third Party Requester's Comments received 30 May 2007

The Third Party Requester does not argue the non-adoption of this rejection.

Ground 35: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner maintains the non-adoption of this rejection for the reasoning stated above in the section entitled: **Proposed Third Party Requester Rejection: Ground #35.**

Proposed Third Party Requester Rejection: Ground #36.

The requester submits on pages 69-72 in the request that claim 6 is unpatentable under 35 U.S.C. § 102(b) as being anticipated by Nesbitt.

In the request on pages 69 through 72 the third party requester proposes that claim 5 be rejected based upon Nesbitt alone with the incorporation by reference of Molitor '637. The third

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party requester points out that Molitor '637 is incorporated by reference into Nesbitt because Nesbitt refers to Molitor '637. (See Nesbitt col. 3, ll. 54-60).

This rejection is adopted essentially as proposed in the request.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt with incorporation by reference of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 6	Nesbitt (primary) with Molitor '637 (incorporated by reference)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-17.)</p>
a spherical core;	<p>"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)</p>
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends" (Nesbitt, col. 5, lines 6-9.)</p>
said inner cover layer having a Shore D	Nesbitt: "[I]nner cover 14 of molded hard, high

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hardness of 60 or greater	<p>flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours.” (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the ‘130 Patent</u>: “Type 1605 SURLYN (now designated SURLYN 8940).” (‘130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: “Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor ‘637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,	“An outer layer , ply, lamination or cover 16 ... is then remolded onto the inner play or layer 14 ...” (Nesbitt, col. 2, ll. 43-47.)
the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,	<p><u>Nesbitt</u>: “Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637</u>: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p>

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<p>said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi</p>	<p>"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)</p> <p><u>Nesbitt</u>: Teaches Surlyn® 1855 (now Surlyn® 9020) which has a flexural modulus of about 14,000 psi.</p> <p><u>Exhibit J</u>: Estane 58133 Product Information: ESTANE 58133 has a modulus of 25,000 psi.</p>
<p>and a Shore D hardness of 64 or less.</p>	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>

As mentioned above, Nesbitt incorporates by reference Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and

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SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from **about 5[%] to about 15% by weight of unsaturated carboxylic acid.**" '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) **ionomer resin having a flexural modulus of about 51,000 psi.**" See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

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Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Ground 36: Patent Owner's Argument received 30 April 2007

The Patent Owner does not argue this rejection.

Ground 36: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's arguments for this claim are the same as given *supra* at "Ground 3: Third Party Requester's Comments."

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Ground 36: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Upon review, the Examiner agrees with the argument of the Third Party Requester and adopts the suggested rejection of this claim with Nesbitt with Molitor '637 incorporated by reference. See "Ground 3: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #37.

In the alternative, the requester submits on pages 69-72 in the request that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt in view of Molitor '637, as evidenced by Exhibit I (SURLYN Thermoplastic Resins Product Information Sheet) and Exhibit J (ESTANE 58133 Product Specification Sheet.)

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Molitor '637 discloses, teaches or suggests the claim limitations.

Claim 6	Nesbitt (primary) with Molitor '637 (teaching)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-17.)</p>
a spherical core;	"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core

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	form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere .” (Nesbitt, col. 2, ll. 31-34.)
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	<p>“Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material...” (Nesbitt, col. 2, ll. 34-37.)</p> <p>“The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends” (Nesbitt, col. 5, lines 6-9.)</p>
said inner cover layer having a Shore D hardness of 60 or greater	<p><u>Nesbitt</u>: “[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours.” (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the ‘130 Patent</u>: “Type 1605 SURLYN (now designated SURLYN 8940).” (‘130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: “Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention.” (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor ‘637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor ‘637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>
and having a modulus of from about 15,000 to about 70,000 psi;	See below.

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an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,	"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner ply or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p>
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	<p>"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)</p> <p><u>Nesbitt</u>: Teaches Surlyn® 1855 (now Surlyn® 9020) which has a flexural modulus of about 14,000 psi.</p> <p><u>Exhibit J</u>: Estane 58133 Product Information: ESTANE 58133 has a modulus of 25,000 psi.</p>
and a Shore D hardness of 64 or less.	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p>

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	<p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
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As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from **about 5[%] to about 15% by weight of unsaturated carboxylic acid.**" '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) **ionomer resin having a flexural modulus of about 51,000 psi.**" See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

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Also, as mentioned above, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

In addition, Nesbitt discloses its outer layer was made from SURLYN 1855 (now SURLYN 9020). This material had inherently flexural modulus of about 14,000 psi and a Shore hardness of 55, see Exhibit I "Typical Properties for Selected Grades of SURLYN". Moreover, as admitted by the inventor Sullivan of the '873 patent, golf ball designers knew that the

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mechanical properties of the materials used as a golf-ball cover layer were more critical to golf ball performance than the actual materials themselves, see Exhibit G at 334.

Thus, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 6 based on Nesbitt in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 37: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 4: Patent Owner's Argument" and "Ground 24: Patent Owner's Argument," *supra*.

Ground 37: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 4: Third Party Requester's Comments" and "Ground 24: Third Party Requester's Comments."

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Ground 37: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 6 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained.. For the response see "Ground 4: Examiner's Response to the Argument and Comments" and "Ground 24: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #38.

The requester submits on pages 72-74 in the request that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Wu.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Wu, as evidenced by Exhibit C.

Below is a claim chart identifying the claim limitations and which reference Nesbitt or Wu discloses, teaches or suggests the claim limitations. As reported in the Decision of 04-06-06 granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane materials, which are non-ionomeric thermoset materials, for the use as an outer layer.

Claim 6	Nesbitt (primary) mentioning Molitor '637 with Wu (teaching)
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-</p>

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	17.)
a spherical core;	<p>"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)</p>
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends" (Nesbitt, col. 5, lines 6-9.)</p>
said inner cover layer having a Shore D hardness of 60 or greater	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>

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and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,	<p>"An outer layer, ply, lamination or cover 16 ... is then remolded onto the inner ply or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)</p> <p><u>Wu</u>: "Preferably, a golf ball is made in accordance with the present invention by molding a cover about a core wherein the cover is formed from a polyurethane composition comprising a polyurethane prepolymer and a slow-reacting polyamine curing agent or a difunctional glycol." (Wu, col. 3, ll. 62-66.)</p>
the outer layer comprising a non-ionoimeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p> <p><u>Wu</u>: "[t]he present invention is a golf ball product made from a polyurethane prepolymer cured with a slow-reacting curing agent selected from the group of slow-reacting polyamine curing agents or difunctional glycols. The term "golf ball product" as used in the specification and claims means a cover, a core, a center or a one-piece golf ball. The cover of a golf ball made in accordance with the present invention has been found to have good shear resistance, cut resistance, durability and resiliency. Preferably, the polyurethane composition of the present invention is used to made the cover of a golf ball." (Wu, col. 2, ll. 33-44.)</p>
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)

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	<p><u>Nesbitt</u>: Teaches Surlyn® 1855 (now Surlyn® 9020) which has a flexural modulus of about 14,000 psi.</p> <p><u>Exhibit J</u>: Estane 58133 Product Information: ESTANE 58133 has a modulus of 25,000 psi.</p>
and a Shore D hardness of 64 or less.	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p> <p><u>Exhibit J</u>: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p> <p><u>Wu</u>: "With polyurethanes made in accordance with the present invention, the degree of cure which has taken place is dependent upon, <i>inter alia</i>, the time, temperature, type of curative, and amount of catalyst used. It has been found that the degree of cure of the cover composition is directly proportional to the hardness of the composition. A hardness of about 10D to 30D, Shore D hardness for the cover stock at the end of the intermediate curing step (i.e. just prior to the final molding step) has been found to be suitable for the present invention, More preferred is a hardness of about 12D to 20D." (Wu, col. 6, ll. 27-38.)</p>

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	See below for more explanation of how Wu teaches and/or suggests the Shore D hardness of 64 or less limitation explanation.
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As mentioned above, Nesbitt mentioning Molitor '637 teaches the use of particular polyurethane materials for the use as an outer layer. Wu teaches that polyurethane was being used as the outer layer of golf ball *circa* 1993. Wu further teaches in col. 1:36-46 that SURLYN covered golf balls lack the "click" and "feel" of balata which golfers have become accustomed to such sensations and polyurethane covered golf balls can be made to have a similar "click" and "feel" of balata. Wu also at least teaches that polyurethanes made according to its invention will have Shore D hardness directly proportional to the degree of cure of the cover; and this Shore D hardness ranges from 10 to 30, preferably 12 to 20 on the Shore D scale, see col. 6:26-38. This teaching of Shore D hardness is directed to an intermediate curing step product prior to the final molding process to finish the golf ball. Exhibit C demonstrates the actual finished golf ball product having the cover layer that Wu teaches within its disclosure. Exhibit C teaches that the golf ball taught therein is covered by the following patents: 4,783,078; 4,846,910; 4,858,923; 4,904,320; 4,915,390; 5,007,594; 5,080,367; 5,133,509; 5,334,673; and D339,074. The '673 Patent teaches the cover sock of the Exhibit C finished golf ball. Exhibit C teaches that the golf ball taught therein has a cover material made from an "elastomer", having a thickness of .050", and 58 Shore D hardness. All three properties are within the range of mechanical properties of the claim invention (polyurethane is an elastomer, cover layer thickness ranges from 0.010 to 0.070 inches and the Shore D hardness is less than 64). Because it has been admitted by the

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inventor of the Sullivan '893 patent that the particular chemical properties of the materials (the chemical composition) used in the construction of a golf ball lack criticality as compared to the mechanical properties (the Shore D hardness, flexural modulus, layer thickness) of those compounds used for constructing the different layers (Exhibit G at 334), one of ordinary skill in the art at the time the invention was made would find it obvious to incorporate the teachings of Wu which inherently include the teachings of Shore hardness for the fully cured cover layer as taught in Exhibit C as obvious equivalent materials in order to achieve the same end result of providing a cover layer that has the same "click" and "feel" of a balata cover which the extra durability of an elastomeric material.

This rejection of claim 6 based on Nesbitt mentioning Molitor '637 in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 38: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 5: Patent Owner's Argument" and "Ground 25: Patent Owner's Argument," *supra*.

Ground 38: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 5: Third Party Requester's Comments" and "Ground 25: Third Party Requester's Comments."

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Ground 38: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 6 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '637 is maintained.. For the response see "Ground 5: Examiner's Response to the Argument and Comments" and "Ground 25: Examiner's Response to the Argument and Comments" *supra*.

Proposed Third Party Requester Rejection: Ground #39.

The requester submits on pages 74-76 in the request that claim 6 is unpatentable under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view of Molitor '751.

Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Nesbitt mentioning Molitor '637 in view of Molitor '751.

Below is a claim chart identifying the claim limitation and where Nesbitt and/or Molitor '637 disclose, teach or suggest the claim limitations. As reported in the Decision granting reexamination, it needs to be correctly stated on the record that Nesbitt and Molitor '637 which is mentioned in Nesbitt teach the use of particular polyurethane material for the use as an outer layer.

Claim 6	Nesbitt (primary) mentioning Molitor '637
A multi-layer golf ball comprising:	<p>"The disclosure embraces a golf ball and method of making the same..." (Nesbitt, Abstract and FIGS. 1 & 2.)</p> <p>"The present invention relates to golf balls and, more particularly, to improved golf balls comprising multi-layer covers which have a hard inner layer and a relatively soft outer layer." (Nesbitt, col. 1, lines 14-</p>

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	17.)
a spherical core;	<p>"Referring to the drawings in detail there is illustrated a golf ball 10 which comprises a solid center or core form as a solid body of resilient polymeric material or rubber-like material in the shape of a sphere." (Nesbitt, col. 2, ll. 31-34.)</p>
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	<p>"Disposed on the spherical center or core 12 is a first layer, lamination, ply or inner cover 14 of molded hard, highly flexural modulus resinous material..." (Nesbitt, col. 2, ll. 34-37.)</p> <p>"The multi-layered cover 12 comprises two layers: a first or inner layer or ply 14 The inner layer can be ionomer, ionomer blends" (Nesbitt, col. 5, lines 6-9.)</p>
said inner cover layer having a Shore D hardness of 60 or greater	<p><u>Nesbitt</u>: "[I]nner cover 14 of molded hard, high flexural modulus resinous material such as type 1605 SURLYN marketed by E.I. Dupont de Nemours." (Nesbitt, col. 2, ll. 36-38.)</p> <p><u>Per the '130 Patent</u>: "Type 1605 SURLYN (now designated SURLYN 8940)." ('130 Patent, col. 2, ll. 46-47.)</p> <p><u>Exhibit I</u>: SURLYN 8940 has a Shore D hardness of 65.</p>
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers 14 ... for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Molitor teaches, in examples 1-7, cover materials including a blend of two ionomer resins: SURLYN 1605 and SURLYN 1557. (Molitor '637, col. 14, l. 22 to col. 16, l. 34.)</p> <p>See below for further explanation of how the % by weight and chemical composition limitations are taught.</p>

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and having a modulus of from about 15,000 to about 70,000 psi;	See below.
an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,	"An outer layer; ply, lamination or cover 16 ... is then remolded onto the inner ply or layer 14 ..." (Nesbitt, col. 2, ll. 43-47.)
the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,	<p><u>Nesbitt</u>: "Reference is made to application Ser. No. 155,658 of Robert P. Molitor issued into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for ... layers ... 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p>Molitor '637: In examples 16 and 17 teaches an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133.</p>
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	<p>"An outer layer, ply, lamination or cover 16 of comparatively soft, low flexural modulus resinous material ... is then re-molded onto the inner ply or layer 14" (Nesbitt, col. 2, lines 43-47.)</p> <p><u>Nesbitt</u>: Teaches Surlyn® 1855 (now Surlyn® 9020) which has a flexural modulus of about 14,000 psi.</p> <p><u>Exhibit J</u>: Estane 58133 Product Information: ESTANE 58133 has a modulus of 25,000 psi.</p>
and a Shore D hardness of 64 or less.	<p><u>Nesbitt</u>: "Reference is made to the application Ser. No. 155,658 of Robert P. Molitor issues into U.S. Pat. No. 4,274,637 which describes a number of foamable compositions of a character which may be employed for one or both layers 14 and 16 for the golf ball of this invention." (Nesbitt, col. 3, ll. 54-60.)</p> <p><u>Molitor '637</u>: Teaches cover materials including "polyurethanes such as are prepared from polyols and organic polyisocyanates"; specifically teaches Estane 58133 thermoplastic polyurethane. (Molitor '637, col. 5, lines 39-41; col. 18, lines 31-59 (examples 16 and 17).)</p>

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	<p>Exhibit J: ESTANE 58133 is a Polyester-Type Thermoplastic Polyurethane (TPU Compound) which is a non-ionomeric thermoplastic elastomer.</p> <p>ESTANE 58133 has a Shore D hardness of 55, see Exhibit J (ESTANE Thermoplastic Polyurethane Product Data Sheet)</p> <p>See below for Shore D hardness of 64 or less limitation explanation.</p>
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As mentioned above, Nesbitt references Molitor '637 as describing an number of compositions suitable for the inner cover layer 14. Of particular interest in this case are Examples 1-7 within Molitor '637. Examples 1-7 use a ratio of SURLYN 1605 and SURLYN 1557. The use of SURLYN grades for golf ball covers is also disclosed in U.S. Pat. No. 4,690,981. The preferred composition in the '981 Patent has "from about 5[%] to about 15% by weight of unsaturated carboxylic acid." '981 Pat., col. 3, ll. 59-60. Those of ordinary skill in the art understand that SURLYN 1605 has been "redesignated" as SURLYN 8940 and SURLYN 1557 has been "redesignated" as SURLYN 9650, see e.g. U.S. Pat. No. 4,679,795, col. 6, ll. 10-15 and U.S. Pat. No. 5,150,906, col. 4, ll. 66. Furthermore, the Patent Owner in the Sullivan '873 Patent admitted that SURLYN 1605 is now designated as 8940 and was used in Nesbitt's first (inner) layer and is a sodium ion based low acid "(less than or equal to 15 weight percent methacrylic acid) ionomer resin having a flexural modulus of about 51,000 psi." See '873 Patent, col. 2, ll. 43-50. Moreover, as shown in the "Properties Grid for Selected Industrial Grades of SURLYN" SURLYN 9650's ordinate compared to the other grades of SURLYN is toward the "Low % Acid" side of the graph. Thus, based on this evidence, Nesbitt referencing

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Molitor '637 inherently teaches using as an inner layer at least one ionomer resin having no more than 16% by weight of alpha, beta-unsaturated carboxylic acid.

Also, Molitor '637 teaches in TABLE 10 an outer layer made from a thermoplastic polyurethane identified as ESTANE 58133. A review of the scientific literature yields that ESTANE 58133 has an inherent Shore D hardness of 55, see Exhibit J "ESTANE 58133 TPU Product Data Sheet". A Shore D hardness of 55 is within the range claimed of Shore D hardness less than 64. Therefore, Molitor '637's teaching of using ESTANE 58133 inherently meets the claim limitation of providing a outer cover layer of polyurethane material having a Shore hardness of less than 64. Moreover, Molitor '637 teaches a list of materials that may adapted for use in the invention:

Homopolymeric and copolymeric substances, such as (1) vinyl resins formed by the polymerization of vinyl chloride or by the copolymerization of vinyl chloride with unsaturated polymerizable compounds, e.g., vinyl esters; (2) polyolefins such as polyethylene, polypropylene, polybutylene, transpolyisoprene, and the like, including copolymers of polyolefins; (3) polyurethanes such as are prepared from polyols and organic polyisocyanates; (4) polyamides such as polyhexamethylene; (5) polystyrene, high impact polystyrene, styrene acrylonitrile copolymer and ABS, which is acrylonitrile, butadiene styrene copolymer; (6) acrylic resins as exemplified by the copolymers of methylmethacrylate, acrylonitrile, and styrene, etc.; (7) thermoplastic rubbers such as the urethanes, copolymers of ethylene and propylene, and transpolyisoprene, block copolymers of styrene and cispolybutadiene, etc.; and (8) polyphenylene oxide resins, or a blend with high impact polystyrene known by the trade name "Noryl."

See Molitor '637, col. 5, ll. 33-50.

As shown above in the claim chart, Nesbitt mentioning Molitor '673 suggests the use of a soft outer cover layer including a polyurethane material. In an analogous golf ball, Molitor '751 teaches that:

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It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55.

(Molitor '751, col. 2, ll.33-49 (emphasis added)).

Moreover, in explaining what constitutes a two-piece golf ball, Molitor '751 teaches that:

The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a separate solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and other balls have non-wound cores.

(Molitor '751, col. 3, ll. 7-12 (emphasis added)).

As stated above, Molitor '751 teaches the cover of the golf ball has a Shore C hardness of less than 85, preferably 70-80, most preferably 72-76. As described in Molitor '751's TABLE bridging columns 7 and 8, Sample 8 constitutes one of the preferred embodiments and its cover is taught to have a Shore C hardness of 73. Patent Owner has admitted that a Shore C hardness of 73 is equal to a Shore D hardness of 47, see U.S. Pat. No. 6,905,648, Table 19 (Exhibit L). Thus, a cover having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

How one of ordinary skill in the art would discover this inherent mechanical property of Shore D hardness for the polyurethane material used in Molitor '751 is by "translating" a Shore C value to a Shore D value for the polyurethane material. How one of ordinary skill in the art "translates" a Shore C value to a Shore D value is by taking the known Shore hardness values with a given range, in this instance Shore C, for given materials, in this instance polyurethane golf ball covers materials, and taking corresponding measurements with a different set of Shore gauges, in this instance Shore D (but could also be Shore A). A resulting trendline plot occurs

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from performing this procedure wherein the range of known Shore C values are the abscissa and the range of measured Shore D values are the ordinate. Then, said plot can be use to read equivalent Shore D value for any given Shore C value within the known range of Shore C. This is how one of ordinary skill in the art can know the equivalent Shore D or even Shore A hardness value for any given Shore C hardness value.

As stated in the request on page 28

It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute the soft non-ionomeric polymeric outer cover layer incorporated by Nesbitt and replace it with an outer cover layer made of the soft polyurethane material taught by Molitor '751 to provide a golf ball that includes "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, ll. 61-68)

Moreover, because it appears that to one of ordinary skill in the art at the time the invention was created that the actual chemical composition of the material is not critical to the practice of the invention with respect to its mechanical performance, i.e. its "click and feel" for a golfer, one of ordinary skill in the art at the time the invention was made would find it obvious to substitute one material for another material if both materials had substantially the same mechanical properties.

This rejection of claim 6 based on Nesbitt mentioning Molitor '637 in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 39: Patent Owner's Argument received 30 April 2007

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The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 6: Patent Owner's Argument" and "Ground 26: Patent Owner's Argument," *supra*.

Ground 39: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 6: Third Party Requester's Comments" and "Ground 26: Third Party Requester's Comments."

Ground 39: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 6 under 35 U.S.C. § 103(a) as being obvious by Nesbitt in view Molitor '751 is maintained.. For the response see "Ground 6: Examiner's Response to the Argument and Comments" and "Ground 26: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #40.

The requester submits on pages 76-80 in the request that claim 6 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Molitor '637.

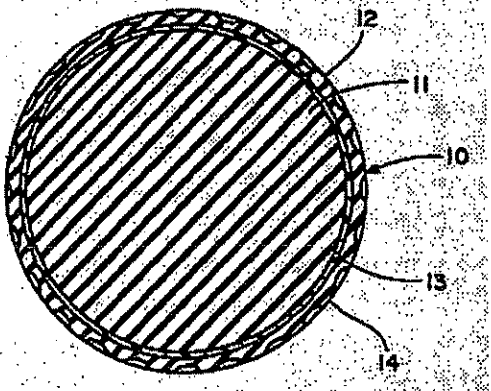
Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '637.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

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Claim 6	Proudfit								
A multi-layer golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)								
a spherical core;	 <p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the same of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two- layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)</p>								
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)								
said inner cover layer having a Shore D hardness of 60 or greater	<p>The composition of the inner cover layer is described in Table 6.</p> <table border="1"> <caption>TABLE 6</caption> <thead> <tr> <th colspan="2">Composition of Inner Layer of Cover (Parts by Weight)</th> </tr> <tr> <th>Ionomer Type</th> <th>Blend Ratio</th> </tr> </thead> <tbody> <tr> <td>Sodium- Surlyn 8940</td> <td>75%</td> </tr> <tr> <td>Zinc- Surlyn 8910</td> <td>25%</td> </tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65;</p>	Composition of Inner Layer of Cover (Parts by Weight)		Ionomer Type	Blend Ratio	Sodium- Surlyn 8940	75%	Zinc- Surlyn 8910	25%
Composition of Inner Layer of Cover (Parts by Weight)									
Ionomer Type	Blend Ratio								
Sodium- Surlyn 8940	75%								
Zinc- Surlyn 8910	25%								

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	<p>SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>						
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>"The inner layer can be molded in one of two methods: 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.)</p>						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>The composition of the inner cover layer is described in Table 6.</p> <table border="1"> <caption>TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</caption> <thead> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> </thead> <tbody> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </tbody> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						

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	grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.																
an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6 Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium Surlyn 8940	75%	Zinc Surlyn 9910	25%										
Ionomer Type	Blend Ratio																
Sodium Surlyn 8940	75%																
Zinc Surlyn 9910	25%																
the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,	<p>"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.</p> <p style="text-align: center;">TABLE 7 Composition of Outer Layer (Parts by Weight)</p> <table> <tr> <td>Trans Polyisoprene (TP-301)</td><td>60.00</td></tr> <tr> <td>Polybutadiene</td><td>40.00</td></tr> <tr> <td>Zinc Oxide</td><td>1.00</td></tr> <tr> <td>Titanium Dioxide</td><td>17.00</td></tr> <tr> <td>Ultramarine Blue color</td><td>.30</td></tr> <tr> <td>Zinc DiAcrylate</td><td>25.00</td></tr> <tr> <td>Peroxide (Varco 250 XL)</td><td>2.50</td></tr> <tr> <td>Total</td><td>160.00</td></tr> </table> <p>Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in</p>	Trans Polyisoprene (TP-301)	60.00	Polybutadiene	40.00	Zinc Oxide	1.00	Titanium Dioxide	17.00	Ultramarine Blue color	.30	Zinc DiAcrylate	25.00	Peroxide (Varco 250 XL)	2.50	Total	160.00
Trans Polyisoprene (TP-301)	60.00																
Polybutadiene	40.00																
Zinc Oxide	1.00																
Titanium Dioxide	17.00																
Ultramarine Blue color	.30																
Zinc DiAcrylate	25.00																
Peroxide (Varco 250 XL)	2.50																
Total	160.00																

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	the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52 . Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)
and a Shore D hardness of 64 or less.	"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Also, see below.

As pointed out in the request on page 79 and 80:

While Proudfit may not expressly disclose the use of polyurethane as an outer cover material, it would have been obvious given that "[t]he patent literature is replete with proposed cover formulations seeking to improve upon the balata and ionomer covers [including] [p]olyurethane" (See Molitor '751, col. 2, lines 9-12.) Soft polyurethane materials had been known to be a substitute for balata covers for decades prior to the filing of the '130 patent.

For example, Molitor '637 discloses the use of polyurethane material as a soft polymeric material that may be used as an outer cover layer of a golf ball. (See Molitor '637, col. 5, lines 33-41; col. 18, Examples 16 and 17.) One exemplary polyurethane material used by Molitor as an outer cover material includes Estane 58133.

As was readily appreciated by those skilled in the art—including the inventor of the '130 patent—the types of materials used in a golf ball are not as critical to a golf ball's playability as are the mechanical properties of those materials. (See Exhibit G at 334.) The Estane 58133 is a relatively soft material and has a Shore D hardness of 55 and is

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also a low flexural modulus material having a modulus of about 25,000 psi. (See Exhibit J.) Proudfit's outer cover layer is also relatively soft and has a flexural modulus between 20,000 and 25,000 psi. (Proudfit, col. 6, lines 28-31 .) Due to the similarities between these two materials, the ordinarily skilled artisan would have recognized the substitutability of these two materials as well as the benefits of using polyurethane as an outer cover material.

On page 80, the request concludes:

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the balata-based outer cover layer of Proudfit to include the Estane polyurethane outer cover layer material of Molitor '637 because such was a well known substitute to balata and gives a number of advantages over balata as would have been readily appreciated by those skilled in the art. These advantages include: (1) improved processability; (2) improved durability when compared to balata; (3) cost-effectiveness when compared to balata; and (4) having a good "click" and "feel." (See *supra* [regarding the what "click" and "feel" mean to a golfer]) All of this would have led one of ordinary skill in the art to replace the soft balata outer cover layer of Proudfit with the soft polyurethane outer cover layer of Molitor '637 at the time of the alleged invention.

This rejection of claim 6 based on Proudfit in view of Molitor '637 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 40: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 20: Patent Owner's Argument," *supra*.

Ground 40: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 20: Third Party Requester's Comments."

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Ground 40: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 6 under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Molitor '637 is maintained.. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 20: Examiner's Response to the Argument and Comments," *supra*.

Proposed Third Party Requester Rejection: Ground #41.

The requester submits on pages 81-82 in the request that claim 6 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Wu.

Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Wu.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

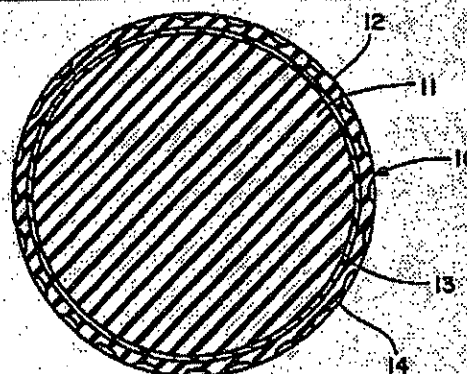
Claim 6	Proudfit
A multi-layer golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)

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a spherical core;



"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the same of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two- layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)

an inner cover layer molded over said spherical core to form a spherical intermediate ball,

"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)

said inner cover layer having a Shore D hardness of 60 or greater

The composition of the inner cover layer is described in Table 6.

TABLE 6	
Composition of Inner Layer of Cover (Parts by Weight)	
Ionomer Type	Blend Ratio
Sodium-Surllyn 8940	75%
Zinc-Surllyn 9910	25%

(Proudfit, col. 8, ll. 22-30.)

SURLYN 8940 has a Shore D hardness of 65;
SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.

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	<p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.) 						
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." (Proudfit, col. 8, ll. 32-38.) 						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						

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an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,

"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlins" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)

"Specific standard Surlin resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)

The composition of the inner cover layer is described in Table 6.

TABLE 6	
Composition of Inner Layer of Cover (Parts by Weight)	
Isomer Type	Bleed Ratio
Sodium Surlin 8940	75%
Zinc Surlin 9910	25%

(Proudfit, col. 8, ll. 22-30.)

the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,

"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft **outer layer** 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)

"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclosed in Table 7 reproduced below.

TABLE 7	
Composition of Outer Layer (Parts by Weight)	
Trans Polyisoprene (TP-301)	60.00
Polybutadiene	40.00
Zinc Oxide	5.00
Titanium Dioxide	17.00
Ultramarine Blue color	.30
Zinc DiAcrylate	35.00
Peroxide (Veron 230 XL)	2.50
Total	160.00

Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that **cover has a Shore D hardness of 52**. Thus, Proudfit's outer layer

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	cover inherently has a Shore D hardness of less than 64.
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)
and a Shore D hardness of 64 or less.	"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Also, see below.

As pointed out in the request on page 81 and 82:

... Proudfit teaches a golf ball having a two-piece [(sic three-piece)] cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the use of a polyurethane material as the outer cover layer of a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the soft balata outer cover layer of Proudfit to include the soft polyurethane material taught by Wu. Wu teaches that: "The problem with SURLYN®-covered golf balls, however, is that they lack the "click" and "feel" which golfers had become accustomed to with balata. "Click" is the sound when the ball is hit by a golf club and "feel" is the overall sensation imparted to the golfer when the ball is hit. It has been proposed to employ polyurethane as a cover stock for golf balls because, like SURLYN®, it has a relatively low price compared to balata and provides superior cut resistance over balata. However, unlike SURLYN®-covered golf balls, polyurethane-covered golf balls can be made to have the "click" and "feel" of balata. (Wu at col. 1, lines 36-46.) As the inventor of the '130 patent had indicated in a 1994 publication, golf ball designers understood that the mechanical properties of the layers impacted the performance of the golf ball more than the materials themselves. (Exhibit G at 334.) Additionally, Wu's polyurethane material inherently has a flexural modulus of about 23,000 psi as measured in accordance with ASTM standards. (Decl. of Jeff Dalton at ¶ 7.) Proudfit's outer cover layer material has a flexural modulus of between about 20,000 and

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25,000 psi. (Proudfit, col. 6, lines 28-31 .) Thus, one of ordinary skill in the art would have appreciated that using Wu's polyurethane as Proudfit's outer cover layer would have provided similar playability characteristics as well as numerous advantages including, for example, durability.

Based on Wu's teachings, one of ordinary skill in the art would have recognized the substitutability of soft polyurethane for soft balata-based materials and the advantages of making such a substitution. These advantages include (1) low price compared to balata; (2) better cut resistance when compared to balata; and (3) a "click" and "feel" that is similar to balata. Moreover, the replacing the balata-material taught by Proudfit would have been obvious to those skilled in the art prior to November 9, 1995 because before that time, the Titleist Professional™ golf ball, which had used Wu's polyurethane material, had replaced balata-covered balls as the market leader. (See Exhibit C; see also Decl. of Jeffery L. Dalton at ¶¶ 3-4.)

On page 82 the request concludes with: "Therefore, it would have been obvious to one of ordinary skill in the art at the time of the alleged invention to modify Proudfit's golf ball by replacing the soft balata outer cover layer with an outer cover layer made of soft polyurethane material because polyurethane provides numerous advantages over balata while exhibiting the "click" and "feel" of balata."

This rejection of claim 6 based on Proudfit in view of Wu was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 41: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection, except for the Dalton Declaration. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 21: Patent Owner's Argument," *supra*.

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For the Dalton Declaration, the Patent Owner argues that it is not competent evidence for the value of the flexural modulus of Titleist 1 Professional golf ball (Patent Owner's Response at middle of page 29).

Ground 41: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 21: Third Party Requester's Comments." Third Party Requester does not specifically argue the Dalton Declaration.

Ground 41: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim 6 under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Wu is maintained.. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 21: Examiner's Response to the Argument and Comments," *supra*. Further, Examiner considers the Dalton Declaration to be competent evidence for at least the flexural modulus value of the Titleist 1 Professional because the results given are the results of a performed test (Decl. of Dalton at para. 7).

Proposed Third Party Requester Rejection: Ground #42.

The requester submits on pages 82-84 in the request that claim 5 is unpatentable under 35 U.S.C. § 103 as being obvious over Proudfit in view of Molitor '751.

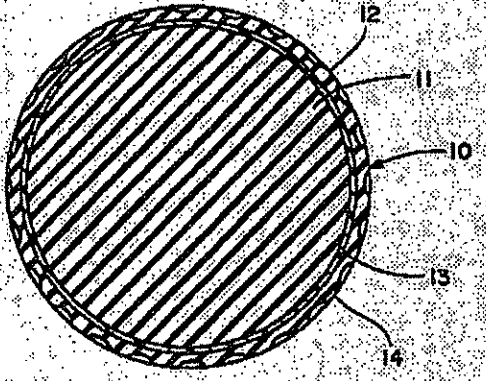
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Claim 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Proudfit in view of Molitor '751.

Below is a claim chart identifying the claim limitations and where Proudfit discloses, teaches or suggests the claim limitations.

Claim 6	Proudfit
A multi-layer golf ball comprising:	"This invention relates to golf balls, and more particularly, to a golf ball having a two-layer cover." (col. 1, lines 11-12.)
a spherical core;	 <p>"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 [in the same of a sphere] and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material. (col. 7, lines 21-24; FIGS 1, 2.) "Two specific solid core compositions used with the new two- layer cover had the composition described in Table 1. One core was used in a golf ball which was designated as a 90 compression ball, and the other core was used in a golf ball which was designated as a 100 compression ball." (col. 7, lines 51-55.)</p>
an inner cover layer molded over said spherical core to form a spherical intermediate ball,	"FIG. 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively hard inner layer 13 of one or more ionomer resins and a relatively soft outer layer 14 of polymeric material." (col. 7, lines 21-24.)
said inner cover layer having a Shore D hardness of 60 or greater	The composition of the inner cover layer is described in Table 6.

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	<p style="text-align: center;">TABLE 6</p> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Eodum-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 has a Shore D hardness of 65; SURLYN 9910 has a Shore D hardness of 64, see Exhibit I. Therefore, this cover blend has a hardness of 60 or more because materials used to make this inner layer have Shore hardness greater than 60.</p> <p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." <p>(Proudfit, col. 8, ll. 32-38.)</p>	Ionomer Type	Blend Ratio	Eodum-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Eodum-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
and comprising an ionomeric resin having no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid	<p>"The inner layer can be molded in one of two methods:</p> <ol style="list-style-type: none"> 1. Injection molded over the core in a manner which is conventionally used to injection mold ionomers over a solid core. 2. Injection mold halfshells, place halfshells over the core, compression mold the inner cover over the core." <p>(Proudfit, col. 8, ll. 32-38.)</p>						
and having a modulus of from about 15,000 to about 70,000 psi;	<p>The composition of the inner cover layer is described in Table 6.</p> <p style="text-align: center;">TABLE 6</p> <p style="text-align: center;">Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Eodum-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> <p>(Proudfit, col. 8, ll. 22-30.)</p> <p>SURLYN 8940 and 9910 are both low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p> <p>Proudfit either incorporates by reference these chemical properties or the materials used within the Proudfit golf ball inherently have these chemical properties. For</p>	Ionomer Type	Blend Ratio	Eodum-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Eodum-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						

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	<p>instance, Proudfit incorporates by reference U.S. Pat. No. 4,690,981 in the background of its invention. (Proudfit, col. 1, ll. 39-43.) The '981 Patent discloses the preferable amount of unsaturated carboxylic acid is "from about 5[%] to about 15% by weight." ('981 Patent, col. 3, ll. 59-60.) If Proudfit discloses using blends of SURLYN as the chemical for making the inner cover and the '981 Patent is the formulation for the ionomer known in the art as SURLYN, then inherently grades of SURLYN such as SURLYN 8940 and 9910 would be low acid ionomer resins containing no more than 16% by weight of an alpha, beta-unsaturated carboxylic acid.</p>						
<p>an outer cover layer molded about said spherical intermediate ball to form a multi-layer golf ball,</p>	<p>"The standard resins have a flexural modulus in the range of about 30,000 to about 55,000 psi as measured by ATM Method D-790. (Standard resins are referred to as "hard Surlyns" in U.S. Patent No. 4,884,814.)" (col. 5, line 66-col. 6, line 1.)</p> <p>"Specific standard Surlyn resins which can be used in the inner layer include 8940 (sodium), 9910 (zinc)" (col. 6, lines 6-7.)</p> <p>The composition of the inner cover layer is described in Table 6.</p> <div style="text-align: center;"> <p>TABLE 6</p> <p>Composition of Inner Layer of Cover (Parts by Weight)</p> <table> <tr> <th>Ionomer Type</th><th>Blend Ratio</th></tr> <tr> <td>Sodium-Surlyn 8940</td><td>75%</td></tr> <tr> <td>Zinc-Surlyn 9910</td><td>25%</td></tr> </table> </div> <p>(Proudfit, col. 8, ll. 22-30.)</p>	Ionomer Type	Blend Ratio	Sodium-Surlyn 8940	75%	Zinc-Surlyn 9910	25%
Ionomer Type	Blend Ratio						
Sodium-Surlyn 8940	75%						
Zinc-Surlyn 9910	25%						
<p>the outer layer comprising a non-ionomeric elastomer selected from the group consisting of polyester elastomer, polyester, polyether polyurethane and polyester amide,</p>	<p>"FIG 1 illustrates a two-piece golf ball 10 which includes a solid core 11 and a cover 12 which comprises a relatively soft outer layer 14 of polymeric material." (Proudfit, col. 7, ll. 21-24.)</p> <p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (Proudfit, col. 5, ll. 15-17.) An example of this blend is disclose in Table 7 reproduced below.</p>						

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	<p style="text-align: center;">TABLE 7 Composition of Outer Layer (Parts by Weight)</p> <table border="1"> <tr><td>Trans Polyisoprene (TF-301)</td><td>60.00</td></tr> <tr><td>Polybutadiene</td><td>50.00</td></tr> <tr><td>Zinc Oxide</td><td>5.00</td></tr> <tr><td>Titanium Dioxide</td><td>17.00</td></tr> <tr><td>Ultramarine Blue color</td><td>.30</td></tr> <tr><td>Zinc DiAcrylate</td><td>15.00</td></tr> <tr><td>Peroxide (Verox 230 XL)</td><td>2.50</td></tr> <tr><td>Total</td><td>160.00</td></tr> </table> <p>Note that Trans Polyisoprene is basically the chemical name for balata and Polybutadiene is one of the first types of synthetic rubber or elastomer. As described in the Rule 132 Declaration of Edmund A. Hebert in paragraph 7, the outer cover layer disclosed in Proudfit is the outer cover layer for the golf ball disclosed in Exhibit A to the Rule 132 Declaration and that cover has a Shore D hardness of 52. Thus, Proudfit's outer layer cover inherently has a Shore D hardness of less than 64.</p>	Trans Polyisoprene (TF-301)	60.00	Polybutadiene	50.00	Zinc Oxide	5.00	Titanium Dioxide	17.00	Ultramarine Blue color	.30	Zinc DiAcrylate	15.00	Peroxide (Verox 230 XL)	2.50	Total	160.00
Trans Polyisoprene (TF-301)	60.00																
Polybutadiene	50.00																
Zinc Oxide	5.00																
Titanium Dioxide	17.00																
Ultramarine Blue color	.30																
Zinc DiAcrylate	15.00																
Peroxide (Verox 230 XL)	2.50																
Total	160.00																
said outer cover layer having a modulus in the range of about 1,000 to about 30,000 psi	<p>"A golf ball cover in accordance with the invention includes ... an outer layer of soft material such as balata or a blend of balata and other elastomers. Preferably, the outer layer is a blend of balata and a thermally crosslinkable elastomer such as polybutadiene. The balata and elastomer are crosslinked [(an indication that the material is a thermosetting material)] during the molding of the ball by a crosslinker such as zinc diacrylate and a crosslinking initiator such as organic peroxide rather than using the conventional sulfur and RR2 crystals curing system for balata covers. The outer layer of the cover is completely crosslinked when the ball is removed from the mold, and subsequent processing steps can be performed in the same manner as on SURLYN covered balls." (Proudfit, col. 5, ll. 17-27.)</p>																
and a Shore D hardness of 64 or less.	<p>"... an outer layer of soft material such as balata or a blend of balata and other elastomers." (col. 5, lines 15-17.) Also, see below.</p>																

As pointed out in the request on page 82-84:

...Proudfit teaches a golf ball having a two-piece cover including a hard, ionomeric inner cover layer and a soft balata outer cover layer. While Proudfit may not disclose the use of a polyurethane material as the outer cover layer for a golf ball, it would have been obvious to one of ordinary skill in the art at the time of invention to modify Proudfit's

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golf ball by replacing the soft balata outer cover layer with the soft polyurethane outer cover layer taught by Molitor '751.

Molitor '751 teaches that: It has now been discovered that a key to manufacturing a two-piece ball having playability properties similar to wound, balata-covered balls is to provide about an inner resilient molded core a cover having a shore C hardness less than 85, preferably 70-80, and most preferably 72-76. The novel cover of the golf ball of the invention is made of a composition comprising a blend of (1) a thermoplastic urethane having a shore A hardness less than 95 and (2) an ionomer having a shore D hardness greater than 55. (Molitor '751, col. 2, lines 33-49.) In explaining what a "two-piece" golf ball is, the Molitor '751 patent explains that: The phrase "two piece ball" as used herein refers primarily to balls consisting of a molded core and a cover, but also includes balls having a solid layer beneath the cover as disclosed, for example, in U.S. Pat. No. 4,431,193 to Nesbitt, and Other balls having non-wound cores. (Molitor '751, col. 2, lines 7-12.)

Proudfit teaches a "two-piece" golf ball that fits within this definition. Molitor '751 explains that the advantages of using a cover layer including a soft polyurethane material on a two-piece golf ball, such as the golf ball of Proudfit, include "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)

Molitor expresses the hardness of the cover material as a Shore C hardness of less than 85, preferably 70 to 85 and most preferably 72 to 76. (Molitor '751, col. 4, lines 21-25.) Based on Callaway's own measurements, a Shore C hardness of 73 is equal to a Shore D hardness of 47. (See U.S. Patent No. 6,905,648, Table 19 (Exhibit L.) A cover material having a Shore C hardness of between 72 and 76 will inherently have a Shore D hardness of less than 64.

On pages 83-84 the request concludes: "Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the soft balata outer cover layer of Proudfit with the soft outer cover layer including a soft polyurethane material as taught by Molitor '751 to provide golf balls that have "playability properties as good or better than balata-covered wound balls but are significantly more durable," and "have better wood playability properties than conventional two-piece balls, and permit experienced golfers to apply spin so as to fade or draw a shot" while having improved puttability. (Molitor '751, col. 2, lines 61-68.)"

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This rejection of claim 6 based on Proudfit in view of Molitor '751 was proposed by the third party requester in the request for reexamination and is being adopted essentially as proposed in the request.

Ground 42: Patent Owner's Argument received 30 April 2007

The Patent Owner does not specifically argue this rejection. The argument is that given at "Ground 1: Patent Owner's Argument" and "Ground 22: Patent Owner's Argument," *supra*.

Ground 42: Third Party Requester's Comments received 30 May 2007

The Third Party Requester's counter arguments for this claim are the same as given *supra* at "Ground 1: Third Party Requester's Comments" and "Ground 22: Third Party Requester's Comments."

Ground 42: Examiner's Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner agrees with the proposed rejection of the Third Party Requester, and the rejection of claim under 35 U.S.C. § 103(a) as being obvious by Proudfit in view Molitor '751 is maintained. For the response see "Ground 1: Examiner's Response to the Argument and Comments" and "Ground 22: Examiner's Response to the Argument and Comments," *supra*.

Unexpected Results and Commerical Success

Patent Owner's Response received 30 April 2007

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Besides arguing the outstanding rejections of individual claims as explained *supra*, the Patent Owner argues generally for non-obviousness of the invention based on unexpected results and commercial success (*see* Patent Owner's Response at pages 6-9). The crux of the argument is that, although the instant invention is made of individual elements known in the art, the unique combination of elements of the claimed invention results in a golf ball with excellent ""distance"" and ""feel"" (Patent Owner's Response at page 7). Consequently, golf balls within the ambit of the claimed invention (*i.e.*, the Rule 35 ball of the Patent Owner and the Pro V1 of the Third Party Requester) have great commercial success. Hence, the "[u]nexpected and overwhelming success of Mr. Sullivan's golf ball technology thus demonstrates that his invention was not simply the predictable result of combining known materials, but in fact represented the best solution even conceived for the distance-versus-control problem" (Patent Owner's Response at page 9).

Third Party Requester's Comments received 30 May 2007

The Third Party Requester comments that: (1) the Sullivan '103 patent does not disclose or suggest the Pro V1 because the Pro V1 has a construction different in several aspects (*eg.*, core size) from the ball disclosed in the Sullivan '130 patent (Third Party Requester's Comments at bottom of page 35 to middle of page 37); (2) there is no nexus between the commercial success of the Third Party Requester's Pro V1 and the Sullivan '130 patent because the Pro V1's success rests upon specific types of advertising (Third Party Requester's Comments at middle of page 38 to middle of page 40) along with different technology (Third Party Requester's Comments at middle of page 40 to middle of page 42); (3) many golf balls purport to have

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solved the distance and “feel” problem (Third Party Requester’s Comments at middle of page 43 to 44); and, (4) even though there were other three-piece, polyurethane balls available, there was little demand for the ball on the PGA tour until shortly before the introduction of the Pro V1 (Third Party Requester’s Comments at 45).

Examiner’s Response to the Argument and Comments in the Office Action mailed 2 Nov. 2007

Examiner generally agrees with the comments of the Third Party Requester and finds the arguments of the Patent Owner of unexpected results and commercial success to be unpersuasive.

As a preliminary matter, the argument(s) presented for secondary considerations presented by the Patent Owner are not relevant to the rejections made under 35 USC 102 (*see* MPEP 2131.04). Thus only the rejections under 35 USC 103 are considered.

To show unexpected results (*i.e.*, unique and excellent combination of distance and “feel”) the Patent Owner uses testimonial-type evidence of statements, or endorsements, by well known golfers such as Arnold Palmer (Patent Owner’s Response at bottom on page 8). Examiner considers this to be opinion evidence because the statements are not accompanied by objective data. Due to this lack of objective data, the probative value of the presented opinion evidence is not sufficient to overcome the *prima facie* rejections, *supra*, maintained in this office action.

The evidence of commercial success proffered by the Patent Owner is similarly testimonial in nature (*e.g.*, “Pro V1 is the “most successful golf ball in the history of the golf

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industry . . .” citing an article in the Golf Gazette). Again no objective data is presented as support. With no objective data, the probative value of the presented evidence is again not sufficient to overcome the *prima facie* rejections, *supra*, maintained in this office action.

As to the comments of the Third Party Requester concerning, *inter alia*, the scope of the claims of the Sullivan ‘130 patent and its nexus with the Pro V1, the Examiner did not evaluate these comments since the secondary considerations presented by the Patent Owner were not found sufficient for the reasons given immediately above.

Patent Owner’s Arguments received 2 January 2008

Since the Patent Owner does not argue rejections of individual claims, the arguments will be addressed by topic as given in the Response received 2 January 2008. Patent Owner argues:

(1) in litigation a district court has ruled for Callway Golf on several validity issues and a jury has recently upheld the validity of claim 5. While not bound by the verdict, the decision is relevant and instructive and deserves consideration by the Examiner (Patent Owner’s Response at middle of page 2);

(2) the district court held that Nesbitt does not incorporate Molitor ‘637 by reference because the legal standard governing incorporation by reference is set forth in *Advanced Display Sys.* which the instant incorporation statement does not meet. The court distinguished *In re Voss* and *In re Hughes* due to the level of detail found in their incorporation statements (Patent Owner’s Response at bottom of page 2 to middle of page 5);

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(3) “The Examiner is bound to give claim terms their broadest *reasonable* construction,” and “indisputable evidence” leads to the conclusion that the claims require Shore D hardness values to be measured on the ball. The language of the claims refer to a “layer” and not a resin for hardness. Similarly, the specification uses hardness values on the ball when comparing finished golf balls. Persons skilled in the art recognize that for three-piece golf balls, hardness values are measured on the ball while hardness is measured off the ball for plaques of material. For example, in the Sullivan article (Exhibit G) Shore hardness is measured on the finished ball. Another example is Molitor ‘751 which discloses hardness on the ball since it is “Finished Ball Data” (Patent Owner’s Response at middle of page 5 to middle of page 8).

For rejections with specific prior art references, use of Proudfit requires impermissible inherency based on the hardness value of the Wilson Ultra Tour Balata ball. Use of Nesbitt, Molitor ‘637, Wu, and Molitor ‘751 are premised on commercial literature that reports hardness of plaques of polymer resins. In particular, for Wu the Examiner relies on comparisons between the Wu patent and commercial literature of the Titlest 1 ball. However, the relationship between the Titlest 1 ball and the Wu patent is flimsy at best with respect to what the Wu patent discloses (Patent Owner’s Response at middle of page 8 to bottom of page 11).

(4) the Examiner erred by failing to give weight to the evidence of commercial success (e.g., sales of the ProV1 golf ball) of nonobviousness submitted by the Patent Owner. The Examiner’s dismissal of this evidence as “testimonial in nature” is improper because the form the evidence takes is not relevant. For example, the Fed. Cir. recently vacated and remanded a decision of the BPAI because the Board failed to consider objective evidence of nonobviousness presented in the form of declarations. Further, the Examiner’s treatment here is inconsistent with

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the treatment given the Third Party Requester's evidence of hardness of the Proudfit' outer layer which was declaratory in nature (Hebert Declaration). Finally, the Examiner's decision to give little weight to the evidence is "particularly egregious" because the PTO's rules do not allow confidential material to remain confidential, thus, the Patent Owner is limited in the type of material submitted (Patent Owner's Response at bottom of page 11 to bottom of page 12); and,

(5) the *KSR* holding quoted by the Examiner is not dispositive because the Examiner's quote also relates to predictability. Patent Owner's evidence shows the instant patent's invention to be "anything but predicable." Further, *KSR* did not change the court's censure against use of hindsight. The obviousness rejections, here, are "hindsight-laced reconstructions based upon selectively choosing bits and pieces from various references and then stitching them together using the '130 patent claims for guidance." Finally, the instant invention is not the product of common sense because other designers of golf balls did not create the invention which revolutionized the golf ball industry and achieved "enormous commercial success" (Patent Owner's Response at bottom of page 12 to middle of page 14).

Third Party Requester's comments received 31 January 2008

The Third Party Requester's rebuttal comments to the Patent Owner's arguments are as follows:

As to argument (2), the Third Party Requester comments that the district court's analysis of this issue "contained numerous flaws." First, the court relied on *Zenon Environ. Inc.* for its holding but applied the holding improperly. When interpreted correctly, *Zenon Environ. Inc.* supports "the Third Party Requester's position - that Nesbitt incorporates all of the specific

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foamable compositions of Molitor '637 by reference" (Third Party Requester's comments at middle of page 4 to page 6). Second, the court misconstrued the disclosure of Molitor '637 by convoluting ionomeric compositions, foamable compositions, and polyurethane (Third Party Requester's comments at page 6). Third, Nesbitt and *In re Voss* "provide the same type of incorporation statement for exactly the same purpose (the use of known materials in the claimed invention). The statements of incorporation found in Nesbitt and *S. Clay Prods.* have similar specificity. Finally, both Nesbitt and *In re Hughes* incorporate several examples (Third Party Requester's comments at bottom of page 7 to middle of page 8).

As to argument (3), the Third Party Requester counters that the Sullivan article's language on hardness is different than that of the '130 patent. Further, other characteristics, such as flexural modulus, has the same language in the claims as Shore hardness but modulus characteristics can not be measured on the ball (Third Party Requester's comments at top of page 2 to middle of page 4).

As to argument (4), the Patent Owner has submitted as objective evidence "a hodgepodge of news clippings and provide[d] an anecdotal assortment of quotes from paid endorsers." Further, "in order to make a showing of unexpected results, Patent Owner must offer evidence of what results would be expected by a person of ordinary skill in the art from the combination of a three piece golf ball with a polyurethane cover." Finally, Patent Owner has not compared the claimed invention to the closest prior art (Third Party Requester's comments at middle of page 21 to bottom of page 22).

As to argument (5), evidence introduced in the parallel court proceedings establish "that it was simply the exercise of ordinary skill in the art to apply urethane, such as taught by Wu's

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1994 patent, to prior art three-piece balls, such as Proudfit or Nesbitt, in order to achieve the same results taught for polyurethane two-piece golf balls - improved durability over balata and improved spin, click, and feel over Surlyn” (Third Party Requester’s comments at page 16 to middle of page 20).

Examiner’s Response to the Argument and Comments received 2 Jan. and 21 Jan.

2008, respectively

Parallel Litigation

As to the Patent Owner’s first argument, Examiner agrees with the Patent Owner and notes that a “*non-final* Court decision concerning a patent under reexamination shall have no binding effect on a reexamination proceeding” (MPEP 2686.04(IV) emphasis in original). Hence, the Examiner has reviewed the holdings of the District Court but is not bound by them.

Incorporation by Reference

As to the Patent Owner’s second argument, the Examiner agrees, in general, with the arguments presented by the Third Party Requester and maintains the rejections based on Nesbitt incorporating by reference Molitor ‘637. The MPEP of the approximate time Nesbitt was filed (Original Fourth Edition, June 1979; Latest Revision September 1982) states that “[a]n application for a patent when filed may incorporate “essential material” by reference” (MPEP 608.01(p)(B) of Rev. 8 Oct. 1981; Third Party Requester’s Exhibit B; emphasis in original). In the next sentence “essential material” is defined as necessary to “(1) support the claims, or (2) for adequate disclosure of the invention.” The Patent Owner cites the District Court’s use of

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Advanced Display Sys. for the standard governing incorporation by reference (Patent Owner's Response at middle of page 3). This standard is that "[t]o incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents" (*Advanced Display Sys.*, 212 F.3d at 1282). Further, "the standard of one reasonably skilled in the art should be used to determine whether the host document describes the material to be incorporated by reference with sufficient particularity" (*Advanced Display Sys.*, 212 F.3d at 1283).

Nesbitt discloses that his invention is a three-piece golf ball with a core having inner and outer layers on the core (Nesbitt at col. 1, lines 45-56). Both the inner and outer layers can be made of either "resinous material or of cellular or foam composition" (Nesbitt at col. 1, lines 49 and 53, respectively). Nesbitt then states that the resinous materials for the two layers can be different types of Surllyn resins (Nesbitt at col. 1, lines 57-64). Surllyn resins are then discussed in the rest of the specification and the claims (see for example claims 7 and 8).

At col. 3, lines 51-61, Nesbitt discusses other materials for the two layers. Here it is disclosed that both the inner and outer layers "may be cellular when formed of a foamed natural or synthetic polymeric material." Nesbitt then states that "[p]olymeric materials are preferably such as ionomer resins which are foamable." Examiner construes this sentence to mean that the polymeric materials preferred by Nesbitt are those that, like ionomer resins, are foamable. Since Nesbitt does not disclose a list of foamable polymeric materials he references Molitor '637 "which describes a number of foamable compositions of a character which may be employed for one or both layers."

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Molitor '637 states that his invention "relates to the use of cellular material as cover stock for conventional golf ball centers" (Molitor '637 at col. 3, line 10-13). The preferred embodiment for the outer cover, similarly to Nesbitt, is a Surlyn resin (Molitor '667 at col. 3, lines 36-42). Farther into the specification, however, Molitor states that other materials both synthetic and natural can be used as the outer layer material (Molitor '637 at col. 5, lines 27-32). Molitor then lists "suitable polymer materials" (Molitor '637 at col. 5, lines 30-55). Included in this list, *inter alia*, are polyethylene, polypropylene, polyurethanes, and thermoplastic rubbers (Molitor '637 at col. 5, lines 33-55). The examples of covers that Molitor '637 discloses use Surlyn resins, polypropylene, polyethylene, and thermoplastic rubbers (Tables 1 to 12).

The Examiner considers Nesbitt to incorporate by reference Molitor '637 because Nesbitt's invention encompasses use of foamable material other than Surlyn resins as cover materials (see above). Since only Surlyn resins are discussed in his specification, Nesbitt incorporates by reference Molitor '637 to supply the "essential material" of other foamable compositions that may be employed. Without this incorporation, Nesbitt's specification appears to lack adequate disclosure for compositions other than Surlyn.

Nesbitt in "sufficient particularity" states that "foamable compositions" are to be referenced, or incorporated. One of reasonable skill, when reading the specification of Molitor '637, would know that Nesbitt meant to incorporate the list of materials found at col. 5, lines 30-55, of Molitor '637, because the list is juxtaposed as an alternative to Surlyn (Molitor '637 at col. 5, lines 27-32). Nesbitt's language of incorporation is similarly juxtaposed as an alternative to Surlyn (Surlyn being "ionomer resins" of col. 3, lines 51-61, of Nesbitt). Both references, then,

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disclose foamable materials, or compositions, other than Surlyn resins that can be used in golf ball construction. One of these listed materials is polyurethane.

Agreeing with the comments of the Third Party Requester (Third Party Requester's comments at page 7), the Examiner considers the holdings of *In re Voss* and *In re Hughes* to support the decision reached here. The pertinent language of incorporation in *In re Voss* was "Reference is made . . . for a general discussion of . . . materials and their production" (557 F.3d at 816). Nesbitt is similar in that both patents incorporate materials. The pertinent language of incorporation in *In re Hughes* was "Reference is made . . . for a complete description of methods of preparing aqueous polymeric dispersions" (550 F.3d at 1275). Nesbitt is similar in that both patents incorporate polymeric materials.

Shore hardness measured on or off the ball

As to the Patent Owner's third argument, Examiner generally agrees with the comments of the Third Party Requester and finds the arguments of the Patent Owner concerning measuring of hardness "on the ball" in the claim language to be unpersuasive.

The rule is that "[d]uring reexamination claims are given the broadest reasonable interpretation consistent with the specification" (MPEP 2658(I) and 2258(I)(G)). Here, the claims are silent as to whether the Shore D hardness value is measured "on the ball" or not. In the specification, examples of hardness measurements are disclosed at col. 6, lines 62-64 and col. 14, lines 60-61. For these examples the hardness value was conducted "in accordance with ASTM method D-2240." ASTM D-2240's method of testing uses a specimen, or plaque, of material, and are not measured "on the ball" (Exhibit C). However, in the "EXAMPLE" portion

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of the specification there is language that appears to support an interpretation of hardness values measured "on the ball." An example is the Shore D hardness data of Table 8 and its accompanying language of ""ball data"" of col. 19, lines 64-67. Also, there is the language of "properties of the finished balls are set forth below" at col. 21, lines 7-9, and Table 9.

The specification, then, appears ambiguous as to the interpretation of the claim language. However, the Federal Circuit has held that "a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment (MPEP 2111.01(II) citing *Superguide Corp. v. DirecTV Enterprises, Inc.*). Further, the Fed. Cir. has stated that "[t]he problem is to interpret claims 'in view of the specification' without unnecessarily importing limitations from the specification into the claim" (MPEP 2111.01(II) citing *E-Pass Techs., Inc. v. 3Com Corp.*).

Since there is ambiguity in the specification as to how hardness values are measured and mindful of not reading limitations into the claim language, the Examiner considers the broadest reasonable interpretation of this claim language to not require the hardness values to be measured "on the ball."

The Patent Owner argues that the language of the claims, themselves, requires hardness to be measured on the ball. "The claims refer to "layer," and then to the Shore hardness of the "layer," as opposed to the Shore D hardness of a resin used to make the layer" (Patent Owner's Response at bottom of page 6). Here, the Examiner agrees with the comments of the Third Party Requester (Third Party Requester's comments at bottom of page 3) and finds this argument unpersuasive. As the Patent Owner states the claim language does place "layer" and "hardness" within the same clause. However, in these clauses similar language is used for "modulus." For

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example, the language of claim 6 is “outer cover layer . . . having a modulus in. . . and Shore D hardness of” (Sullivan ‘130 at cols. 23 and 24). The modulus value can not be determined “on the ball” (*see* Third Party Requester’s comments at bottom of page 3). Since both modulus and hardness are presented with similar language in the claims, the Examiner does not consider this argument dispositive.

The Patent Owner further argues that the Sullivan article supports their interpretation of “off the ball” because in this article hardness is measured “on the ball” (Patent Owner’s Response at bottom of page 7 and top of page 8). Again, the Examiner agrees with the comments of the Third Party Requester (Third Party Requester’s comments at bottom of page 2 and top of page 3). As the Third Party Requester point outs the language in the Sullivan article is “Shore Hardness was measured in general accordance with ASTM Test D-2240, measured on the parting line of a fixtured, finished ball” (Patent Owner’s Response at top of page 8). Since the phrase “measured on the parting line of fixtured, finished ball” is neither in the specification nor in the claims of the instant patent, the Examiner does not consider this argument to be dispositive.

Finally, the Patent Owner argues the inherencies the Shore hardness values of Proudfit (Patent Owner’s Response at middle of page 8) and Wu (Patent Owner’s Response at bottom of page 9). Examiner has considered these arguments previously for the individual rejections, *supra*, and considers them unpersuasive.

Evidence of Commercial Success

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As to the Patent Owner's fourth argument, Examiner generally agrees with the comments of the Third Party Requester and finds the arguments of the Patent Owner concerning commercial success to be unpersuasive. The Examiner has not disregarded the evidence presented by the Patent Owner. As stated in the previous office action, the probative value of the evidence presented by the Patent Owner for unexpected results and commercial success is not enough to overcome the *prima facie* case of obviousness presented in the rejections, *supra*. MPEP 716.01(c)(III) states that "[i]n assessing the probative value of an expert opinion, the examiner must consider the nature of the matter sought to be established, the interest of the expert in the outcome of the case, and the presence or absence of factual support for the expert's opinions." Here, it is not clear to the Examiner if the opinions of the individuals proffered by the Patent Owner have a interest in the outcome of the case. Also, no factual data is presented to show commercial success or unexpected results.

As to the use of the Hebert Declaration, Examiner considers it proper because Hebert presented objection data for his observations, or conclusions.

Claims are nonobvious under the KSR standards

As to the Patent Owner's fifth argument, Examiner generally agrees with the comments of the Third Party Requester and finds the arguments of the Patent Owner concerning the KSR obvious standard to be unpersuasive. In *KSR* the Supreme Court stated that "[o]ne of the ways in which a patent's subject matter can be proved obvious is by noting that there existed at the time of invention a known problem for which there was an obvious solution encompassed by the patent's claims." (*KSR*, slip opinion at page 16). The Court further stated that the "combination

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of familiar elements according to known methods is likely to be obvious when it does no more that yield predictable results.” (*KSR*, slip opinion at page 12).

It was known in the art that two-piece golf balls having a hard cover lack the “feel” characteristics of balata covered golf balls (Nesbitt at col. 1, lines 26-33). Nesbitt’s three-piece golf ball (a core, a hard inner layer, and a soft outer layer) was an attempt to provide both distance and “feel” (Nesbitt at col. 1, lines 65-68 continuing to col. 2, lines 1-9). An outer layer of balata was not effective, however, because of its lack of “cut” resistance (Wu at col. 1, lines 40-46). Polyurethane was proposed for use as an outer layer on a two-piece because it was known to provide both “feel” and cut resistance (Wu at col. 1, lines 47-53) and found to be comparable to three-piece, balata covered balls (Wu at cols. 7 and 8). In other words, polyurethane was found to be a solution to a known problem. With this information, it would be predictable, then, for one of ordinary skill to use polyurethane as the outer layer on a three-piece golf ball to achieve the same results of “feel” and cut resistance. The resultant three-piece golf ball with an outer layer of polyurethane did, as predicted, achieve the goal of “feel” (playability) and cut resistance (durability) (Sullivan ‘103 at abstract).

As to hindsight, the Court stated that a “factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.” (*KSR*, slip opinion at page 17; emphasis in original). Here, hindsight is not used because the reasoning for use of a soft, outer layer of polyurethane were explicitly stated in the prior art - to combine “feel” and cut resistance. The reasoning for combining the references, then, is not *ex post* reasoning but supplied in the references, themselves.

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As to the use of common sense, the Examiner considers it common sense to use polyurethane as an outer layer on a golf ball given the prior art as explained immediately above. Commerical success without objective data and the fact that no one else invented the invention are tangential to the case of *prima facie* obviousness presented in this office action.

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Conclusion

This is an ACTION CLOSING PROSECUTION (ACP); see MPEP § 2671.02.

(1) Pursuant to 37 CFR 1.951(a), the patent owner may once file written comments limited to the issues raised in the reexamination proceeding and/or present a proposed amendment to the claims which amendment will be subject to the criteria of 37 CFR 1.116 as to whether it shall be entered and considered. Such comments and/or proposed amendments must be filed within a time period of 30 days or one month (whichever is longer) from the mailing date of this action. Where the patent owner files such comments and/or a proposed amendment, the third party requester may once file comments under 37 CFR 1.951(b) responding to the patent owner's submission within 30 days from the date of service of the patent owner's submission on the third party requester.

(2) If the patent owner does not timely file comments and/or a proposed amendment pursuant to 37 CFR 1.951(a), then the third party requester is precluded from filing comments under 37 CFR 1.951(b).

(3) Appeal **cannot** be taken from this action, since it is not a final Office action.

All correspondence relating to this *inter partes* reexamination proceeding should be directed as follows:

By U.S. Postal Service Mail to:

Mail Stop *Inter Partes* Reexam
ATTN: Central Reexamination Unit
Commissioner for Patents
US Patent & Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

By FAX to: (571) 273-9900
Central Reexamination Unit

By hand to: Customer Service Window
ATTN: Central Reexamination Unit
Randolph Building
401 Dulany St.
Alexandria, VA 22314

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Any inquiry concerning this communication or earlier communications from the Examiner, or as to the status of this proceeding, should be directed to the Central Reexamination Unit at telephone number (571) 272-7705.

/Jeffrey L. Gellner/
Central Reexam Unit
571.272.6887

Conferees: /DR/

A handwritten signature, possibly reading 'AK', is written below the 'Conferees' line.

EXHIBIT B

**THIS EXHIBIT HAS BEEN
REDACTED IN ITS ENTIRETY**